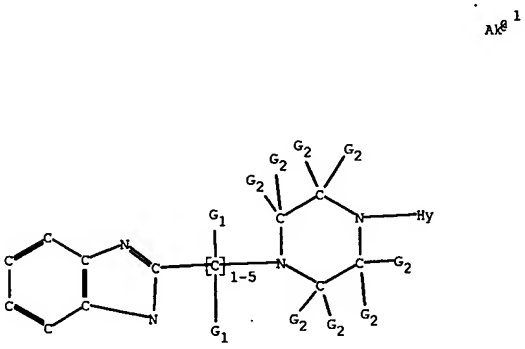
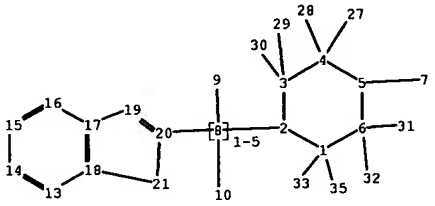
C:\Documents and Settings\EBernhardt\My Documents\Stnexp\Queries\10656672-2.str





chain nodes :
7 8 9 10 24 27 28 29 30 31 32 33 35
ring nodes :
1 2 3 4 5 6 13 14 15 16 17 18 19 20 21
chain bonds :
1-33 1-35 2-8 3-29 3-30 4-27 4-28 5-7 6-31 6-32 8-9 8-10 8-20
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 13-14 13-18 14-15 15-16 16-17 17-18
17-19 18-21 19-20 20-21
exact/norm bonds :
1-2 1-6 1-33 1-35 2-3 2-8 3-4 3-29 3-30 4-5 4-27 4-28 5-6
5-7 6-31 6-32 8-9 8-10 17-19 18-21 19-20 20-21
exact bonds :
8-20
normalized bonds :
13-14 13-18 14-15 15-16 16-17 17-18
isolated ring systems :
containing 13 :

G1:H,CH3

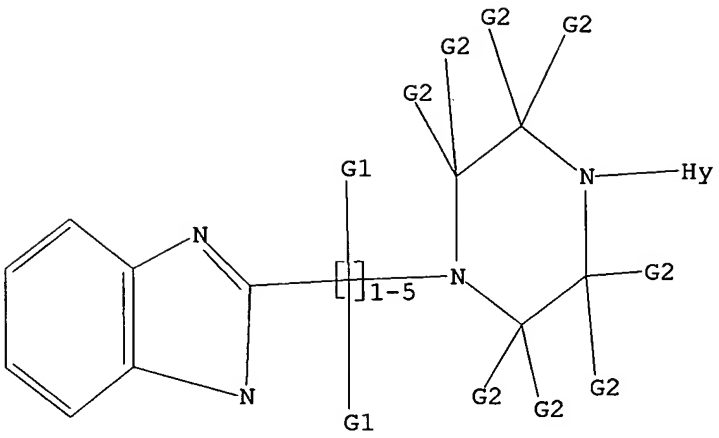
G2:H,[*1]

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:CLASS 9:CLASS
10:CLASS 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 24:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS
31:CLASS

32:CLASS 33:CLASS 35:CLASS
Generic attributes :
7:
Saturation : Unsaturated
Type of Ring System : Monocyclic

```
=> d que stat
L1              STR
```

Ak 1

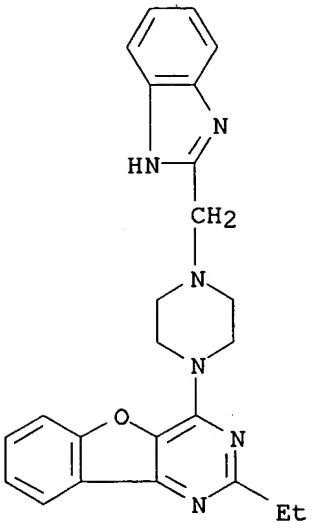


G1 H,Me

G2 H,[@1]

Structure attributes must be viewed using STN Express query preparation.

```
=> s l1
SAMPLE SEARCH INITIATED 17:19:08 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      168 TO ITERATE

100.0% PROCESSED      168 ITERATIONS                          12 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:         2583 TO     4137
PROJECTED ANSWERS:              33 TO      447

L2           12 SEA SSS SAM L1

=> d l2 1 5 10

L2   ANSWER 1 OF 12  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   845630-29-7  REGISTRY
ED   Entered STN:  15 Mar 2005
CN   INDEX NAME NOT YET ASSIGNED
FS   3D CONCORD
MF   C24 H24 N6 O
SR   Chemical Library
```

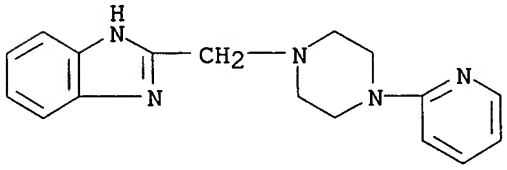


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 ANSWER 5 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN
RN 587871-25-8 REGISTRY
ED Entered STN: 18 Sep 2003
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, compd. with bromine (1:1) (9CI) (CA INDEX NAME)
MF C17 H19 N5 . Br2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

CRN 70006-24-5
CMF C17 H19 N5



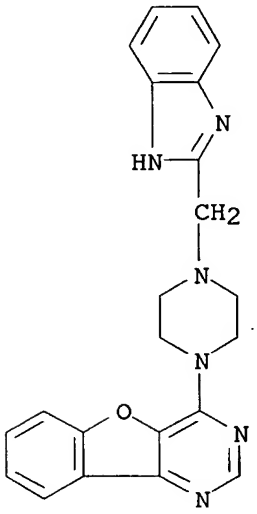
CM 2

CRN 7726-95-6
CMF Br2

Br—Br

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 10 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN
RN 383411-98-1 REGISTRY
ED Entered STN: 16 Jan 2002
CN Benzofuro[3,2-d]pyrimidine, 4-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C22 H20 N6 O
SR Chemical Library
Supplier: LaboTest
LC STN Files: CHEMCATS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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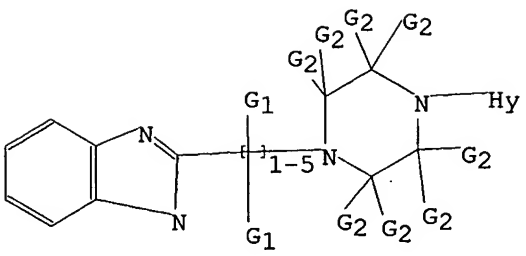
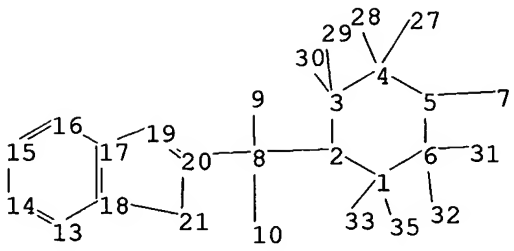
Uploading C:\Documents and Settings\EBernhardt\My Documents\Stnexp\Queries\10656672-2.str

AR1 24 1





chain nodes :
7 8 9 10 24 27 28 29 30 31 32 33 35
ring nodes :
1 2 3 4 5 6 13 14 15 16 17 18 19 20 21
chain bonds :
1-33 1-35 2-8 3-29 3-30 4-27 4-28 5-7 6-31 6-32 8-9 8-10 8-20
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 13-14 13-18 14-15 15-16 16-17 17-18 17-19
18-21 19-20 20-21
exact/norm bonds :
1-2 1-6 1-33 1-35 2-3 2-8 3-4 3-29 3-30 4-5 4-27 4-28 5-6 5-7 6-31
6-32 8-9 8-10 17-19 18-21 19-20 20-21
exact bonds :
8-20
normalized bonds :
13-14 13-18 14-15 15-16 16-17 17-18
isolated ring systems :
containing 13 :

G1:H,CH3

G2:H,[*1]

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:CLASS 9:CLASS 10:CLASS
13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom
24:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:CLASS
35:CLASS
Generic attributes :
7:
Saturation : Unsaturated
Type of Ring System : Monocyclic

L3 STRUCTURE UPLOADED

=> s l3
SAMPLE SEARCH INITIATED 17:21:14 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 168 TO ITERATE

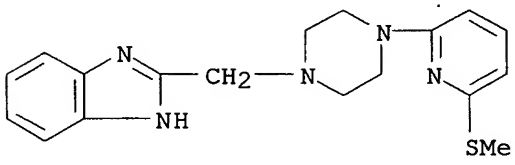
100.0% PROCESSED 168 ITERATIONS 9 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 2583 TO 4137
PROJECTED ANSWERS: 9 TO 360

L4 9 SEA SSS SAM L3

=> d l4 1-9

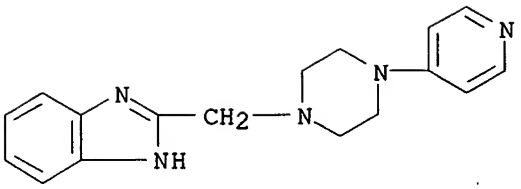
L4 ANSWER 1 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN 726174-08-9 REGISTRY
ED Entered STN: 13 Aug 2004
CN 1H-Benzimidazole, 2-[[4-[6-(methylthio)-2-pyridinyl]-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C18 H21 N5 S
SR CA
LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 2 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN 689261-14-1 REGISTRY
ED Entered STN: 04 Jun 2004
CN 1H-Benzimidazole, 2-[[4-(4-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C17 H19 N5
CI COM
SR CA

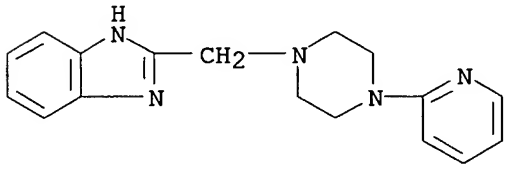


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 ANSWER 3 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN 587871-25-8 REGISTRY
ED Entered STN: 18 Sep 2003
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, compd. with bromine (1:1) (9CI) (CA INDEX NAME)
MF C17 H19 N5 . Br2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 7726-95-6
CMF Br2

Br—Br

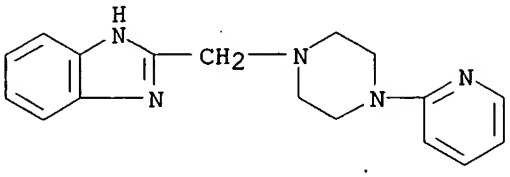
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 4 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN 587871-24-7 REGISTRY
ED Entered STN: 18 Sep 2003
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, (2S,3S)-2,3-dihydroxybutanedioate (1:2) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C17 H19 N5 . 2 C4 H6 O6
SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

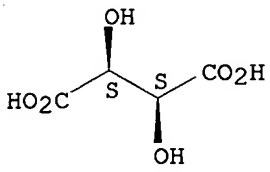
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 147-71-7
CMF C4 H6 O6

Absolute stereochemistry.

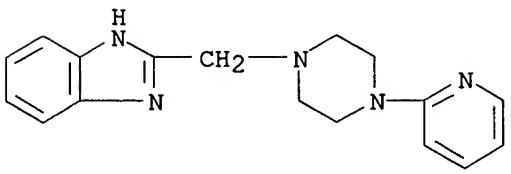


2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 5 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN 587871-22-5 REGISTRY
ED Entered STN: 18 Sep 2003
CN L-Glutamic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C17 H19 N5 . C5 H9 N O4
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

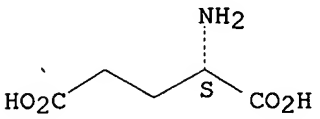
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 56-86-0
CMF C5 H9 N O4

Absolute stereochemistry.

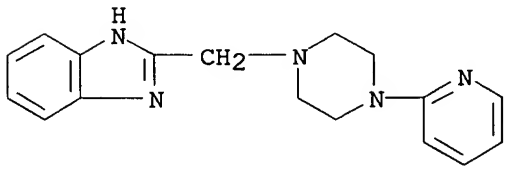


2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 6 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN 587871-17-8 REGISTRY
ED Entered STN: 18 Sep 2003
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, rel-(2R,3R)-2,3-dihydroxybutanedioate (1:2) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C17 H19 N5 . 2 C4 H6 O6
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

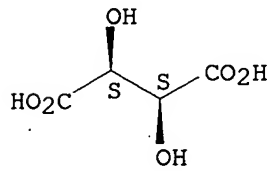
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 133-37-9
CMF C4 H6 O6

Relative stereochemistry.

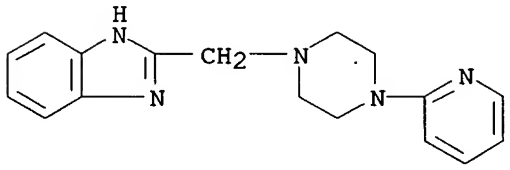


2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 7 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN 587870-90-4 REGISTRY
ED Entered STN: 18 Sep 2003
CN Heptanoic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)
MF C17 H19 N5 . C7 H14 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 111-14-8
CMF C7 H14 O2

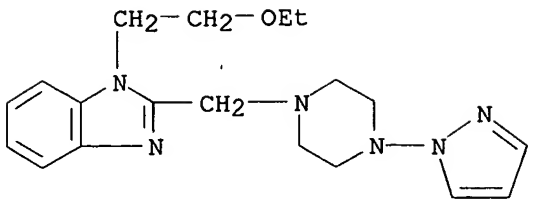
Me— $(CH_2)_5$ — CO_2H

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 8 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN 140945-43-3 REGISTRY
ED Entered STN: 01 May 1992
CN 1H-Benzimidazole, 1-(2-ethoxyethyl)-2-[[4-(1H-pyrazol-1-yl)-1-piperazinyl]methyl]-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1H-Benzimidazole, 1-(2-ethoxyethyl)-2-[[4-(1H-pyrazol-1-yl)-1-piperazinyl]methyl]-, (Z)-2-butenedioate (1:1)
FS STEREOSEARCH
MF C19 H26 N6 O . C4 H4 O4
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

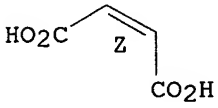
CRN 140945-42-2
CMF C19 H26 N6 O



CM 2

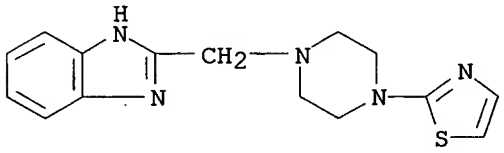
CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 9 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN 700006-25-6 REGISTRY
ED Entered STN: 16 Nov 1984
CN 1H-Benzimidazole, 2-[[4-(2-thiazolyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2-[[4-(1,3-Thiazol-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole
FS 3D CONCORD
MF C15 H17 N5 S
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7 REFERENCES IN FILE CA (1907 TO DATE)
7 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d his

(FILE 'HOME' ENTERED AT 17:18:00 ON 29 SEP 2005)

FILE 'REGISTRY' ENTERED AT 17:18:10 ON 29 SEP 2005
L1 STRUCTURE UPLOADED

```
L2            12 S L1
L3               STRUCTURE UPLOADED
L4             9 S L3

=> s l3 sss full
FULL SEARCH INITIATED 17:21:39 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     3591 TO ITERATE

100.0% PROCESSED     3591 ITERATIONS                                 103 ANSWERS
SEARCH TIME: 00.00.01

L5           103 SEA SSS FUL L3

=> save l3
ENTER NAME OR (END):ten656672/a
L3 IS NOT AN ANSWER SET
A name ending in /A can only be used to save the L-number answer
set resulting from a search.

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                     185.99     186.20

FILE 'CAPLUS' ENTERED AT 17:22:05 ON 29 SEP 2005
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FILE COVERS 1907 - 29 Sep 2005  VOL 143 ISS 14
FILE LAST UPDATED: 28 Sep 2005  (20050928/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.

=> s l5
L6            13 L5

=> d l6 1-13 bib abs fhitstr

L6   ANSWER 1 OF 13  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   2004:546484  CAPLUS
DN   141:106462
TI   Preparation of pyrazoles as inhibitors of HSP90
IN   Beswick, Mandy Christine; Drysdale, Martin James; Dymock, Brian William;
```
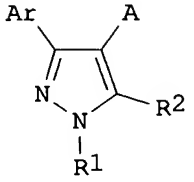

McDonald, Edward
PA Vernalis Cambridge Limited, UK; Cancer Research Technology Ltd.; The Institute of Cancer Research
SO PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004056782	A1	20040708	WO 2003-GB5501	20031218
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2509403	AA	20040708	CA 2003-2509403	20031218
EP 1572664	A1	20050914	EP 2003-768007	20031218
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI GB 2002-29618	A	20021219		
WO 2003-GB5501	W	20031218		

OS MARPAT 141:106462
GI



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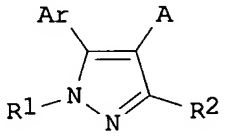
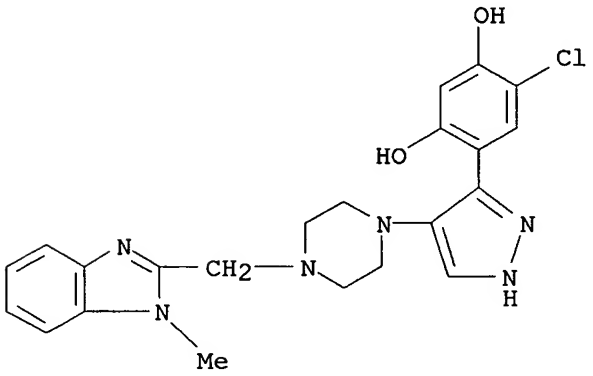


II

AB The title compds. [I or II; Ar = (un)substituted aryl, arylalkyl, heteroaryl, heteroarylalkyl; R1 = H, alkyl; R2 = H, (un)substituted cycloalkyl, cycloalkenyl, alkyl, alkenyl, alkynyl, carboxyl, carboxamide or carboxyl ester group; A = non-arom. carbocyclic or heterocyclic ring wherein (i) a ring carbon is optionally substituted, and/or (ii) a ring nitrogen is optionally substituted by a group of formula -(Alk1)p(Cyc)n(Alk3)m(Z)r(Alk2)sQ where Alk1, Alk2 and Alk3 = alkyl; Cyc = carbocyclic or heterocyclic radical; m, n, p, r and s = 0-1; Z = O, S, CO, SO2, etc.; Q = H, (un)substituted carbocyclic or heterocyclic radical] which are inhibitors of HSP90, and are of value in the treatment of diseases responsive to HSP90 inhibition such as cancer, were prepd. E.g., a multi-step synthesis of 4-chloro-6-(4-piperazin-1-yl-1H-pyrazol-3-yl)benzene-1,3-diol which showed IC50 of <50 .mu.M in the malachite green ATPase assay, was given.
IT **719287-59-9P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of pyrazoles as inhibitors of HSP90)

RN 719287-59-9 CAPLUS
CN 1,3-Benzenediol, 4-chloro-6-[4-[4-[(1-methyl-1H-benzimidazol-2-yl)methyl]-1-piperazinyl]-1H-pyrazol-3-yl]- (9CI) (CA INDEX NAME)

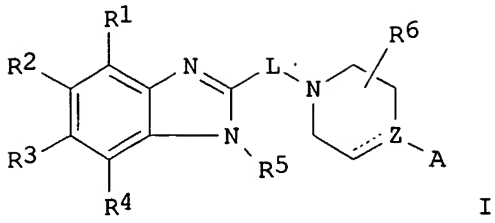


RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

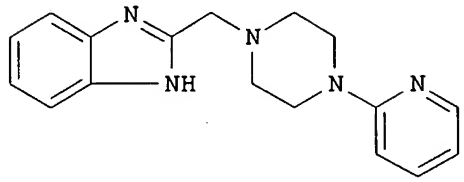
L6 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:533974 CAPLUS
DN 141:89087
TI Preparation of 2-(piperazinylmethyl)-1H-benzimidazoles and related compounds that are useful in treating sexual dysfunction
IN Cowart, Marlon D.; Patel, Meena V.; Kolasa, Teodozyi; Brioni, Jorge D.; Rohde, Jeffrey J.; Engstrom, Kenneth M.; Stewart, Andrew O.; Daanen, Jerome F.; Bhatia, Pramila A.
PA USA
SO U.S. Pat. Appl. Publ., 59 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004127504	A1	20040701	US 2003-656672	20030905
PRAI	US 2002-408784P	P	20020906		

OS MARPAT 141:89087
GI



I



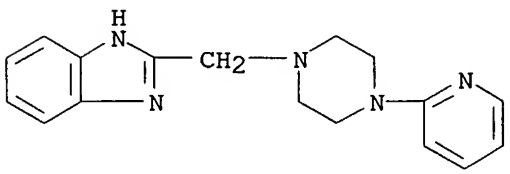
II

AB Title compds. (I) [wherein A = (un)substituted Ph, pyridinyl, pyrimidinyl, thienyl, pyrrolyl, furyl, imidazolyl, pyrazolyl, (is)oxazolyl, (iso)thiazolyl, triazolyl, tetrazolyl, etc.; L = CH2, CH2CH2, CH2CH2CH2, or CH2CH2CH2CH2; R1-R4 = independently H, alkoxy(carbonyl), alkenyl, (halo)alkyl, alkylthio, alkylsulfinyl, alkylsulfonyl, alkynyl, alkylcarbonyl(oxy), CO2H, CN, CHO, halo(alkoxy), OH, hydroxyalkyl, SH, NO2, or (un)substituted amino or carbamoyl; R5 = H, alkoxycarbonyl, alkyl, (cyclo)alkylcarbonyl, arylcarbonyl, heterocyclylcarbonyl, or (un)substituted carbamoyl; R6 = H or alkyl; Z = N, C, or CH; or pharmaceutically acceptable salt, ester, amide, or prodrug thereof] were prepd. as dopamine agonists (no data) for the treatment of sexual dysfunction. For example, 2-chloromethylbenzimidazole and TEA were added to 1-(2-pyridyl)piperazine in DMF and the soln. stirred at 20.degree. for 16 h to give 2-[(4-pyridin-2-ylpiperazin-1-yl)methyl]-1H-benzimidazole (II) in 72% yield. The latter induced penile erection in Wistar rats with an incidence of 83% at a dose of 0.03 .mu.mol/kg without inducing emesis.

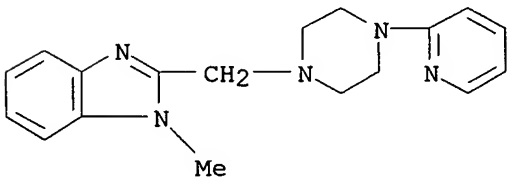
IT **70006-24-5P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(dopamine agonist; prepn. of (heterocyclylalkyl)benzimidazoles from heterocycles and (haloalkyl)benzimidazoles for treatment of sexual dysfunction)

RN 70006-24-5 CAPLUS

CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

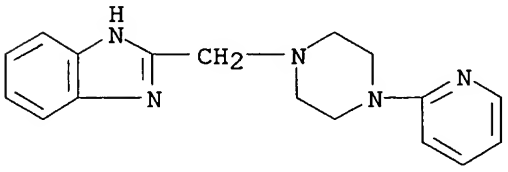


L6 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:465135 CAPLUS
DN 141:150462
TI Discovery of 2-(4-Pyridin-2-ylpiperazin-1-ylmethyl)-1H-benzimidazole (ABT-724), a Dopaminergic Agent with a Novel Mode of Action for the Potential Treatment of Erectile Dysfunction
AU Cowart, Marlon; Latshaw, Steven P.; Bhatia, Pramila; Daanen, Jerome F.; Rohde, Jeffrey; Nelson, Sherry L.; Patel, Meena; Kolasa, Teodozyi; Nakane, Masaki; Uchic, Marie E.; Miller, Loan N.; Terranova, Marc A.; Chang, Renjie; Donnelly-Roberts, Diana L.; Namovic, Marian T.; Hollingsworth, Peter R.; Martino, Brenda R.; Lynch, James J., III; Sullivan, James P.; Hsieh, Gin C.; Moreland, Robert B.; Brioni, Jorge D.; Stewart, Andrew O.
CS Department of Neuroscience Research, Abbott Laboratories, Abbott Park, IL, 60064-6123, USA
SO Journal of Medicinal Chemistry (2004), 47(15), 3853-3864
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
OS CASREACT 141:150462
AB A new class of agents with potential utility for the treatment of erectile dysfunction has been discovered, guided by the hypothesis that selective D4 agonists are erectogenic but devoid of the side effects typically assocd. with dopaminergic agents. The lead agent 2-(4-pyridin-2-ylpiperazin-1-ylmethyl)-1H-benzimidazole (1, ABT-724) was discovered by optimization of a series of benzimidazole arylpiperazines. This highly selective D4 agonist was found to be very potent and efficacious in vivo, eliciting penile erections in rats at a dose of 0.03 .mu.mol/kg, with a pos. response rate of 77% erectile incidence. Even at high doses, it was devoid of side effects in animal models of central nervous system behaviors, emesis, or nausea. The structure-activity relationship of the parent benzimidazole series leading to 1 is described, with the detailed in vitro and in vivo profiles described. Distinctive structural features were discovered that are assocd. with D4 selective agonism in this series of analogs.
IT **392321-86-7P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and structure-activity relationship studies of ABT-724 and arylpiperazine-piperidine analogs, as dopaminergic agents with a novel mode of action for treatment of erectile dysfunction)
RN 392321-86-7 CAPLUS
CN 1H-Benzimidazole, 1-methyl-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:388216 CAPLUS
DN 141:99528
TI Activation of dopamine D4 receptors by ABT-724 induces penile erection in rats
AU Brioni, Jorge D.; Moreland, Robert B.; Cowart, Marlon; Hsieh, Gin C.; Stewart, Andrew O.; Hedlund, Petter; Donnelly-Roberts, Diana L.; Nakane, Masaki; Lynch, James J., III; Kolasa, Teodozyi; Polakowski, James S.; Osinski, Mark A.; Marsh, Kennan; Andersson, Karl-Erik; Sullivan, James P.
CS Neuroscience Research, Global Pharmaceutical Research and Development, Abbott Laboratories, Abbott Park, IL, 60064, USA
SO Proceedings of the National Academy of Sciences of the United States of America (2004), 101(17), 6758-6763
CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English
AB Apomorphine, a nonselective dopamine receptor agonist, facilitates penile erection and is effective in patients suffering from erectile dysfunction. The specific dopamine receptor subtype(s) responsible for its erectogenic effect is not known. Here we report that the dopamine D4 receptor plays a role in the regulation of penile function. ABT-724 is a selective dopamine D4 receptor agonist that activates human dopamine D4 receptors with an EC50 of 12.4 nM and 61% efficacy, with no effect on dopamine D1, D2, D3, or D5 receptors. ABT-724 dose-dependently facilitates penile erection when given s.c. to conscious rats, an effect that is blocked by haloperidol and clozapine but not by domperidone. A proerectile effect is obsd. after intracerebroventricular but not intrathecal administration, suggesting a supraspinal site of action. S.c. injections of ABT-724 increase intracavernosal pressure in awake freely moving rats. In the presence of sildenafil, a potentiation of the proerectile effect of ABT-724 is obsd. in conscious rats. The ability of ABT-724 to facilitate penile erection together with the favorable side-effect profile indicates that ABT-724 could be useful for the treatment of erectile dysfunction.
IT **70006-24-5**, ABT 724
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ABT-724 activation of D4 receptors induces penile erection)
RN 70006-24-5 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:236724 CAPLUS
DN 140:399345

TI Dopamine D4 ligands and models of receptor activation: 2-(4-pyridin-2-ylpiperazin-1-ylmethyl)-1H-benzimidazole and related heteroarylmethylarylpiperazines exhibit a substituent effect responsible for additional efficacy tuning

AU Stewart, Andrew O.; Cowart, Marlon D.; Moreland, Robert B.; Latshaw, Steve P.; Matulenko, Mark A.; Bhatia, Pramila A.; Wang, Xueqing; Daanen, Jerome F.; Nelson, Sherry L.; Terranova, Marc A.; Namovic, Marian T.; Donnelly-Roberts, Diana L.; Miller, Loan N.; Nakane, Masaki; Sullivan, James P.; Brioni, Jorge D.

CS Global Pharmaceutical Research and Development, Department R4ND, Neuroscience Research, Abbott Laboratories, Abbott Park, IL, 60064-6115, USA

SO Journal of Medicinal Chemistry (2004), 47(9), 2348-2355
CODEN: JMCMAR; ISSN: 0022-2623

PB American Chemical Society

DT Journal

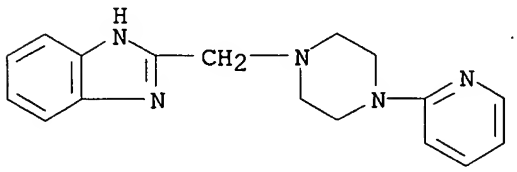
LA English

AB A series of subtype selective dopamine D4 receptor ligands from the heteroarylmethylphenylpiperazine class have been discovered that exhibit a remarkable structure-activity relation (SAR), revealing a substituent effect in which regiosubstitution on the terminal arylpiperazine ring can modulate functional or intrinsic activity. Other structure-dependent efficacy studies in the dopamine D4 field have suggested a crit. interaction of the heteroarylmethyl moiety with specific protein microdomains in controlling intrinsic activity. The authors studies indicate that for some binding orientations, the phenylpiperazine moiety also plays a key role in detg. efficacy. These data also implicate a kinetic or efficiency term, contained within measured functional affinities for agonists, which support a sequential binding and conformational stabilization model for receptor activation. The structural similarity between partial agonist and antagonist, within this subset of ligands, and lack of bioisosterism for this substituent effect are key phenomena for these hypotheses.

IT **70006-24-5P**, 2-(4-Pyridin-2-ylpiperazin-1-ylmethyl)-1H-benzimidazole
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(dopamine D4 ligands and models of receptor activation using 4-pyridinylpiperazinylmethyl-1H-benzimidazole and related heteroarylmethylarylpiperazines which exhibit a substituent effect)

RN 70006-24-5 CAPLUS

CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RE.CNT 62 THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:678507 CAPLUS
DN 139:214467
TI Preparation of 2-(piperazinylmethyl)-1H-benzimidazoles and related compounds that are useful in treating sexual dysfunction
IN Cowart, Marlon D.; Bhatia, Pramila A.; Daanen, Jerome F.; Stewart, Andrew O.; Patel, Meena V.; Kolasa, Teodozyj; Brioni, Jorge D.; Rohde, Jeffrey; Engstrom, Kenneth M.
PA USA
SO U.S. Pat. Appl. Publ., 53 pp., Cont.-in-part of U.S. Ser. No. 94,265. CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003162790	A1	20030828	US 2002-236812	20020906
	US 2002169167	A1	20021114	US 2002-94265	20020308
	CA 2478028	AA	20030918	CA 2003-2478028	20030304
	WO 2003076431	A1	20030918	WO 2003-US6406	20030304
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	BR 2003005708	A	20040928	BR 2003-5708	20030304
	EP 1483258	A1	20041208	EP 2003-716268	20030304
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
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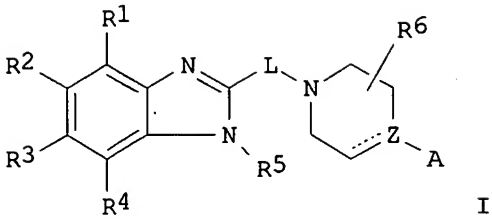
	US 2001-296078P	P	20010605		
	US 2002-94265	A2	20020308		
	US 2001-340452P	P	20011214		
	US 2002-236812	A	20020906		
	WO 2003-US6406	W	20030304		

OS MARPAT 139:214467
GI



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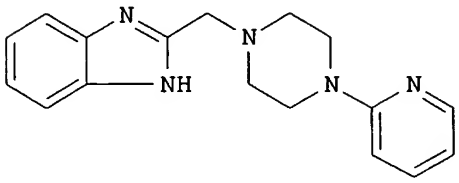


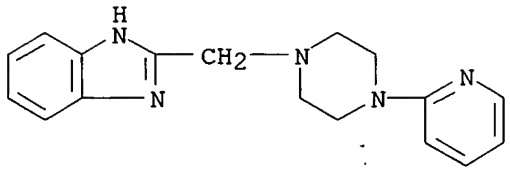
II

AB Title compds. (I) [wherein A = (un)substituted Ph, pyridinyl, pyrimidinyl, thienyl, pyrrolyl, furyl, imidazolyl, pyrazolyl, (is)oxazolyl, (iso)thiazolyl, triazolyl, tetrazolyl, etc.; L = CH2, CH2CH2, CH2CH2CH2, or CH2CH2CH2CH2; R1-R4 = independently H, alkoxy(carbonyl), alkenyl, (halo)alkyl, alkylthio, alkylsulfinyl, alkylsulfonyl, alkynyl, alkylcarbonyl(oxy), CO2H, CN, CHO, halo(alkoxy), OH, hydroxyalkyl, SH, NO2, or (un)substituted amino or carbamoyl; R5 = H, alkoxycarbonyl, alkyl, (cyclo)alkylcarbonyl, arylcarbonyl, heterocyclylcarbonyl, or (un)substituted carbamoyl; R6 = H or alkyl; Z = N, C, or CH; or pharmaceutically acceptable salt, ester, amide, or prodrug thereof] were prepd. as dopamine agonists (no data) for the treatment of sexual dysfunction. For example, 2-chloromethylbenzimidazole and TEA were added to 1-(2-pyridyl)piperazine in DMF and the soln. stirred at 20.degree. for 16 h to give 2-[(4-pyridin-2-ylpiperazin-1-yl)methyl]-1H-benzimidazole (II) in 72% yield. The latter induced penile erection in Wistar rats with an incidence of 83% at a dose of 0.03 .mu.mol/kg without inducing emesis.

IT **70006-24-5P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(dopamine agonist; prepn. of (heterocyclylalkyl)benzimidazoles from heterocycles and (haloalkyl)benzimidazoles for treatment of sexual dysfunction)

RN 70006-24-5 CAPLUS

CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:23532 CAPLUS
DN 138:89812
TI Preparation of heteroalkyl-substituted benzimidazoles useful in treating sexual dysfunction
IN Cowart, Marlon D.; Bhatia, Pramila A.; Daanen, Jerome F.; Stewart, Andrew O.; Patel, Meena V.; Kolasa, Teodozyj; Brioni, Jorge D.
PA USA
SO U.S. Pat. Appl. Publ., 44 pp., Cont.-in-part of U.S. Ser. No. 803,537, abandoned.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003008878	A1	20030109	US 2001-874484	20010605
	US 2002169166	A1	20021114	US 2001-17939	20011214
	CA 2439943	AA	20021107	CA 2002-2439943	20020306
	WO 2002088093	A1	20021107	WO 2002-US7791	20020306
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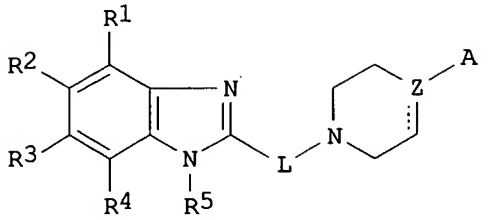
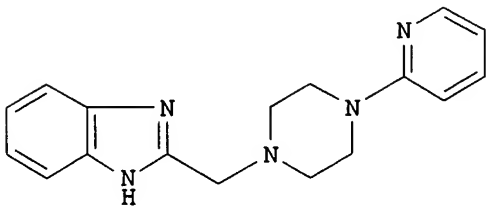
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1373220	A1	20040102	EP 2002-731130	20020306
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	CN 1516693	A	20040728	CN 2002-809382	20020306
	JP 2005507370	T2	20050317	JP 2002-585395	20020306
	BR 2002005812	A	20050503	BR 2002-5812	20020306
	NO 2003003959	A	20031110	NO 2003-3959	20030908
	ZA 2003007007	A	20041208	ZA 2003-7007	20030908
	BG 108230	A	20050430	BG 2003-108230	20031003
PRAI	US 2001-803537	B2	20010309		
	US 2001-874484	A2	20010605		
	US 2001-17939	A	20011214		
	WO 2002-US7791	W	20020306		

OS MARPAT 138:89812
GI



I



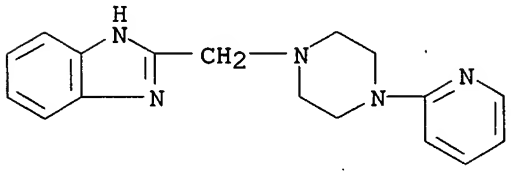
II

AB Title compds. I [A = (hetero)aryl; L = CH2, CH2CH2, etc.; R1-4 = H, alkoxy, alkenyl, alkyl, alkylsulfinyl, alkylsulfonyl, etc.; R5 = H, alkoxycarbonyl, alkyl, etc.; Z = N, C(H)] are prepd. For instance, 1-(2-pyridyl)piperazine is alkylated with 2-chloromethylbenzimidazole (DMF, Et3N, 16 h) to give II. II induced statistically significant penile erections in rats after s.c. administration for doses of 0.01 .mu.mol/kg to 0.10 .mu.mol/kg. I are useful for the treatment of sexual dysfunction.

IT **70006-24-5P**, 2-[(4-(Pyridin-2-yl)piperazin-1-yl)methyl]-1H-benzimidazole
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of heteroalkyl-substituted benzimidazoles as dopamine agonists useful in treating sexual dysfunction)

RN 70006-24-5 CAPLUS

CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:888718 CAPLUS

DN 137:384842

TI Benzimidazole compounds and antiviral uses thereof

IN Lackey, John William; Kinder, Daniel S.; Tvermoes, Nicolai A.

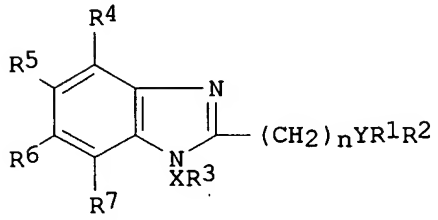
PA Trimeris, Inc., USA

SO PCT Int. Appl., 143 pp.
CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002092575	A1	20021121	WO 2002-US14598	20020510
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003119754	A1	20030626	US 2002-141839	20020509
PRAI	US 2001-290038P	P	20010511		

OS MARPAT 137:384842
GI

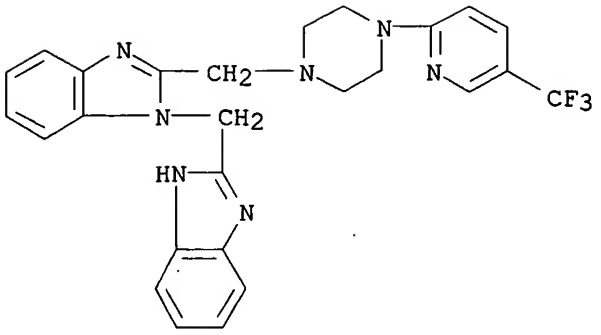


I

AB Title compds. I [R1, R2 = H, (un)substituted alkyl, cycloalkyl, heterocyclic, aryl, heteroaryl; R3 = H, halo, (un)substituted alkyl, Oh, alkoxy, aryl, heterocyclic, heteroaryl; R4-R7 = H, halo, (un)substituted alkyl, OH, alkoxy, aryl, heterocyclic, heteroaryl; X = bond, (un)substituted alkylene, C:N, CO, P, S; Y = N, P, O, S; when Y = O, S, R2 is absent; n = 0-4] were prepd. for use as virucides that inhibit membrane fusion assocd. events such as viral transmission, reduce viral load or otherwise treat viral infections, particularly that caused by Respiratory Syncytial Virus. Thus, I [R1 = cyclohexyl, R2 = CHMe2, Y = N, X = CH2, R3 = 2-quinolinyl, R4-R7 = H] had IC50 of 5.16 .mu.g/mL.

IT **475648-10-3P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of benzimidazole derivs. as virucides for treating Respiratory Syncytial Virus infections)

RN 475648-10-3 CAPLUS
CN 1H-Benzimidazole, 1-(1H-benzimidazol-2-ylmethyl)-2-[[4-[5-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:869583 CAPLUS
DN 137:353027
TI Preparation of 2-(piperazinylmethyl)-1H-benzimidazoles and related compounds that are useful in treating sexual dysfunction
IN Cowart, Marlon D.; Bhatia, Pramila A.; Daanen, Jerome F.; Stewart, Andrew O.; Patel, Meena V.; Kolasa, Teodozyj; Brioni, Jorge D.; Rohde, Jeffrey
PA USA
SO U.S. Pat. Appl. Publ., 53 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002169167	A1	20021114	US 2002-94265	20020308
	US 2003162790	A1	20030828	US 2002-236812	20020906
	CA 2478028	AA	20030918	CA 2003-2478028	20030304
	WO 2003076431	A1	20030918	WO 2003-US6406	20030304
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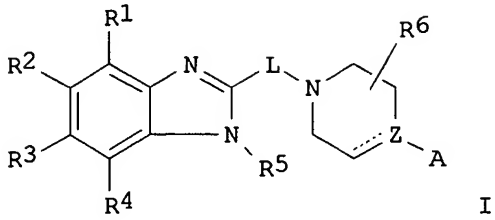
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	BR 2003005708	A	20040928	BR 2003-5708	20030304
	EP 1483258	A1	20041208	EP 2003-716268	20030304
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	US 2004110766	A1	20040610	US 2003-699465	20031031
PRAI	US 2001-274805P	P	20010309		
	US 2001-296078P	P	20010605		
	US 2001-340452P	P	20011214		
	US 2002-94265	A2	20020308		
	US 2002-236812	A	20020906		
	WO 2003-US6406	W	20030304		

OS MARPAT 137:353027
GI



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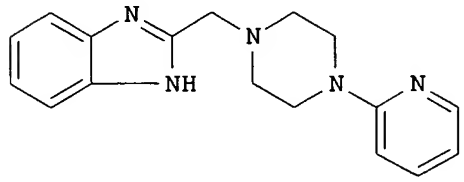


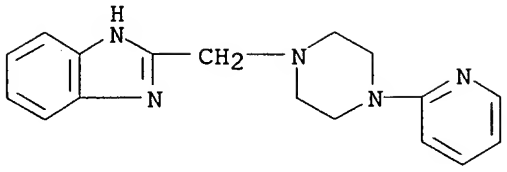
II

AB Title compds. (I) [wherein A = (un)substituted Ph, pyridinyl, pyrimidinyl, thienyl, pyrrolyl, furyl, imidazolyl, pyrazolyl, (is)oxazolyl, (iso)thiazolyl, triazolyl, tetrazolyl, etc.; L = CH2, CH2CH2, CH2CH2CH2, or CH2CH2CH2CH2; R1-R4 = independently H, alkoxy(carbonyl), alkenyl, (halo)alkyl, alkylthio, alkylsulfinyl, alkylsulfonyl, alkynyl, alkylcarbonyl(oxy), CO2H, CN, CHO, halo(alkoxy), OH, hydroxyalkyl, SH, NO2, or (un)substituted amino or carbamoyl; R5 = H, alkoxycarbonyl, alkyl, (cyclo)alkylcarbonyl, arylcarbonyl, heterocyclylcarbonyl, or (un)substituted carbamoyl; R6 = H or alkyl; Z = N, C, or CH; or pharmaceutically acceptable salt, ester, amide, or prodrug thereof] were prepd. as dopamine agonists (no data) for the treatment of sexual dysfunction. For example, 2-chloromethylbenzimidazole and TEA were added to 1-(2-pyridyl)piperazine in DMF and the soln. stirred at 20.degree. for 16 h to give 2-[(4-pyridin-2-ylpiperazin-1-yl)methyl]-1H-benzimidazole (II) in 72% yield. The latter induced penile erection in Wistar rats with an incidence of 83% at a dose of 0.03 .mu.mol/kg without inducing emesis.

IT **70006-24-5P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(dopamine agonist; prepn. of (heterocyclylalkyl)benzimidazoles from heterocycles and (haloalkyl)benzimidazoles for treatment of sexual dysfunction)

RN 70006-24-5 CAPLUS

CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:869582 CAPLUS
DN 137:353026
TI Preparation of 2-(piperazinylmethyl)-1H-benzimidazoles and related compounds that are useful in treating sexual dysfunction
IN Cowart, Marlon D.; Bhatia, Pramila A.; Daanen, Jerome F.; Stewart, Andrew O.; Patel, Meena V.; Kolasa, Teodozyj; Brioni, Jorge D.; Rohde, Jeffrey
PA USA
SO U.S. Pat. Appl. Publ., 53 pp., Cont.-in-part of U.S. Ser. No. 874,484.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002169166	A1	20021114	US 2001-17939	20011214
	US 2003008878	A1	20030109	US 2001-874484	20010605
	CA 2439943	AA	20021107	CA 2002-2439943	20020306
	WO 2002088093	A1	20021107	WO 2002-US7791	20020306
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1373220	A1	20040102	EP 2002-731130	20020306
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	CN 1516693	A	20040728	CN 2002-809382	20020306
	JP 2005507370	T2	20050317	JP 2002-585395	20020306
	BR 2002005812	A	20050503	BR 2002-5812	20020306
	NO 2003003959	A	20031110	NO 2003-3959	20030908
	BG 108230	A	20050430	BG 2003-108230	20031003
PRAI	US 2001-803537	B2	20010309		
	US 2001-874484	A2	20010605		
	US 2001-17939	A	20011214		
	WO 2002-US7791	W	20020306		

OS MARPAT 137:353026
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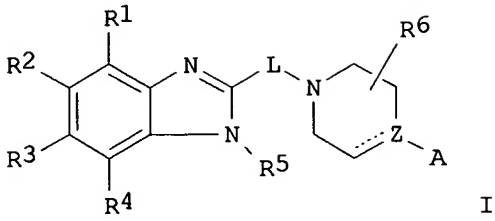

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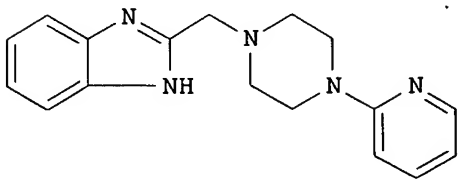


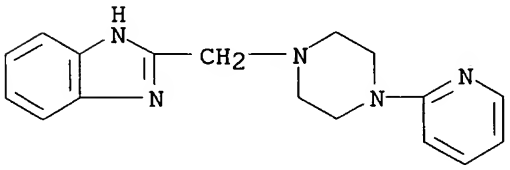
II

AB Title compds. (I) [wherein A = (un)substituted Ph, pyridinyl, pyrimidinyl, thienyl, pyrrolyl, furyl, imidazolyl, pyrazolyl, (is)oxazolyl, (iso)thiazolyl, triazolyl, tetrazolyl, etc.; L = CH2, CH2CH2, CH2CH2CH2, or CH2CH2CH2CH2; R1-R4 = independently H, alkoxy(carbonyl), alkenyl, (halo)alkyl, alkylthio, alkylsulfinyl, alkylsulfonyl, alkynyl, alkylcarbonyl(oxy), CO2H, CN, CHO, halo(alkoxy), OH, hydroxyalkyl, SH, NO2, or (un)substituted amino or carbamoyl; R5 = H, alkoxycarbonyl, alkyl, (cyclo)alkylcarbonyl, arylcarbonyl, heterocyclylcarbonyl, or (un)substituted carbamoyl; R6 = H or alkyl; Z = N, C, or CH; or pharmaceutically acceptable salt, ester, amide, or prodrug thereof] were prepd. as dopamine agonists (no data) for the treatment of sexual dysfunction. For example, 2-chloromethylbenzimidazole and TEA were added to 1-(2-pyridyl)piperazine in DMF and the soln. stirred at 20.degree. for 16 h to give 2-[(4-pyridin-2-ylpiperazin-1-yl)methyl]-1H-benzimidazole (II) in 72% yield. The latter induced penile erection in Wistar rats with an incidence of 83% at a dose of 0.03 .mu.mol/kg without inducing emesis.

IT **70006-24-5P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(dopamine agonist; prepn. of (heterocyclylalkyl)benzimidazoles from heterocycles and (haloalkyl)benzimidazoles for treatment of sexual dysfunction)

RN 70006-24-5 CAPLUS

CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:849600 CAPLUS
DN 137:353023
TI Preparation of 2-heterocycloalkyl-benzimidazole derivatives for treating sexual dysfunction
IN Cowart, Marlon D.; Bhatia, Pramila A.; Daanen, Jerome F.; Stewart, Andrew O.; Kolasa, Teodozyj; Rohde, Jeffrey J.; Patel, Meena V.; Brioni, Jorge D.
PA Abbott Laboratories, USA
SO PCT Int. Appl., 115 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002088093	A1	20021107	WO 2002-US7791	20020306
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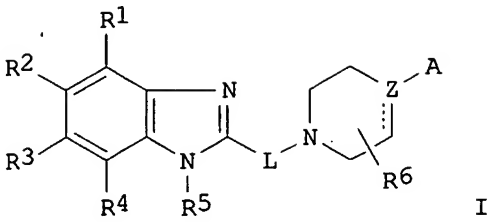
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003008878	A1	20030109	US 2001-874484	20010605
	US 2002169166	A1	20021114	US 2001-17939	20011214
	CA 2439943	AA	20021107	CA 2002-2439943	20020306
	EP 1373220	A1	20040102	EP 2002-731130	20020306
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2005507370	T2	20050317	JP 2002-585395	20020306
	BR 2002005812	A	20050503	BR 2002-5812	20020306
	NO 2003003959	A	20031110	NO 2003-3959	20030908
PRAI	US 2001-803537	A	20010309		
	US 2001-874484	A	20010605		
	US 2001-17939	A	20011214		
	WO 2002-US7791	W	20020306		

OS MARPAT 137:353023
GI



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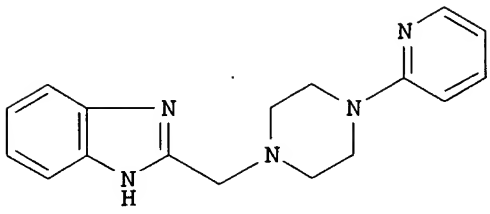


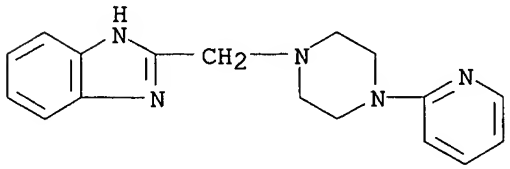
II

AB The present invention relates to the use of I [A = Ph, pyridyl, pyrimidinyl, thiophenyl, etc.; X = NH, O, S; L = (CH2)1-4; R1-4 = H, alkoxy, alkenyl, alkyl, alkylsulfinyl, etc.; R5 = H, alkoxycarbonyl, alkyl, alkylcarbonyl, arylcarbonyl, etc.; R6 = H, alkyl; Z = N, C (if dotted line is a bond), CH (if dotted line is absent)] for the treatment of sexual dysfunction. For instance, 1-(2-pyridyl)piperazine was reacted with 2-chloromethylbenzimidazole to afford II which was isolated and converted to the maleate salt. II at s.c. doses of 0.01 - 0.10 .mu.mol/kg induced statistically significant penile erections in rats compared to vehicle (L-ascorbic acid in saline).

IT **70006-24-5P**, 2-[(4-(Pyridin-2-yl)piperazin-1-yl)methyl]-1H-benzimidazole
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 2-piperazino/piperidino-alkyl-benzimidazole derivs. for treating sexual dysfunction)

RN 70006-24-5 CAPLUS

CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1992:235655 CAPLUS

DN 116:235655
TI Preparation of 2-[4-(azolobutyl)piperazino(methyl)]benzimidazoles and analogs as antihistaminics
IN Cuberes-Altisent, Maria Rosa; Frigola-Constansa, Jordi; Pares-Corominas, Juan
PA Laboratorios del Dr. Esteve S. A., Spain
SO Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 468884	A1	19920129	EP 1991-402055	19910724
	EP 468884	B1	19951220		
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	FR 2665161	A1	19920131	FR 1990-9563	19900726
	FR 2665161	B1	19921127		
	NO 9102669	A	19920127	NO 1991-2669	19910708
	NO 178576	B	19960115		
	NO 178576	C	19960424		
	RO 109736	B1	19950530	RO 1991-148010	19910715
	KR 183028	B1	19990501	KR 1991-12584	19910723
	AU 9181280	A1	19920130	AU 1991-81280	19910724
	AU 638857	B2	19930708		
	AT 131822	E	19960115	AT 1991-402055	19910724
	CA 2047880	AA	19920127	CA 1991-2047880	19910725
	ZA 9105839	A	19920429	ZA 1991-5839	19910725
	US 5182280	A	19930126	US 1991-735653	19910725
	ES 2038074	A1	19930701	ES 1991-1740	19910725
	ES 2038074	B1	19940201		
	RU 2024519	C1	19941215	RU 1991-5001216	19910725
	PL 167222	B1	19950831	PL 1991-291247	19910725
	CN 1058404	A	19920205	CN 1991-105154	19910726
	CN 1030915	B	19960207		
	HU 58320	A2	19920228	HU 1991-2518	19910726
	HU 215109	B	20000428		
	JP 04234387	A2	19920824	JP 1991-187721	19910726
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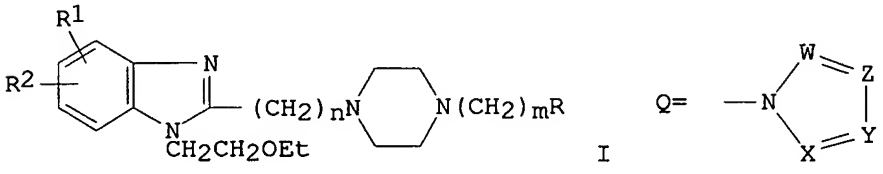
	IN 176350	A	19960504	IN 1991-DE679	19910726
PRAI	FR 1990-9563	A	19900726		

OS MARPAT 116:235655
GI



I

AB Title compds. [I; R = azolo group Q; R1, R2 = H, halo, alkyl, alkoxy, etc.; X, Y, Z, W = N, (substituted) CH; n = 0, 1; m = 2-4] were prepd. Thus, I (R1 = R2 = H, n = 1) (II; R = H, m = 0) was condensed with

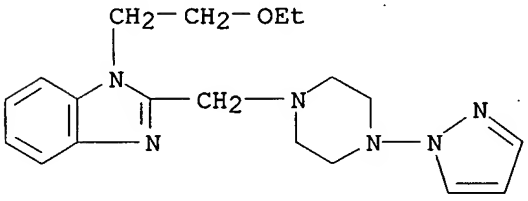
N-(4-bromobutyl)phthalimide and the product hydrazinolyzed to give II (m = 4) (III; R = NH2) which was cyclocondensed with 2,5-dimethoxytetrahydrofuran to give III (R = pyrrolo). III (R = 1,2,4-triazol-1-yl) had ED50 of 0.036 mg/kg i.p. against compd. 48/80-induced mortality in rats.

IT **140945-43-3P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as antihistaminic)

RN 140945-43-3 CAPLUS
CN 1H-Benzimidazole, 1-(2-ethoxyethyl)-2-[[4-(1H-pyrazol-1-yl)-1-piperazinyl]methyl]-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

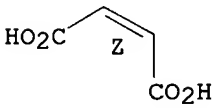
CRN 140945-42-2
CMF C19 H26 N6 O



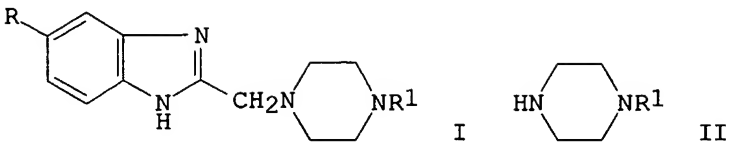
CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.



L6 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1979:204028 CAPLUS
DN 90:204028
TI Synthesis and anthelmintic activity of 2-(N4-substituted-N1-piperazinyl)methyl-5-(or 6)-substituted benzimidazoles
AU Sule, D. P.; Shah, M. H.; Ghooi, Shaila; Bhide, M. B.
CS Dep. Chemother., Haffkine Inst., Bombay, India
SO Bulletin of Haffkine Institute (1978), 6(2), 62-4
CODEN: BHFIA9; ISSN: 0304-9515
DT Journal
LA English
GI



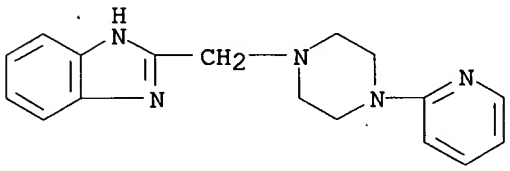
I II

AB Sixteeen piperazinylmethylbenzimidazoles I (R = NO2, H; R1 = Me, CH2CH2OH, benzyl, Ph, p-ClC6H4, o-MeOC6H4, o-tolyl, 2-pyridyl, 2-thiazolyl) were prepd. by reaction of the piperazine II with the resp. 2-chloromethylbenzimidazoles, which were prepd. from 3,4-(H2N)2C6H3R and ClCH2CO2H. The majority of I showed anthelmintic activity >80% at 500 mg/kg as compared to Yomesan showing 100% activity at 500 mg/kg. I (R = NO2) were more active than I (R = H).

IT **70006-24-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and anthelmintic activity of)

RN 70006-24-5 CAPLUS

CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



=> d l6 6-13 bib abs hitstr

L6 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:678507 CAPLUS

DN 139:214467

TI Preparation of 2-(piperazinylmethyl)-1H-benzimidazoles and related compounds that are useful in treating sexual dysfunction

IN Cowart, Marlon D.; Bhatia, Pramila A.; Daanen, Jerome F.; Stewart, Andrew O.; Patel, Meena V.; Kolasa, Teodozyj; Brioni, Jorge D.; Rohde, Jeffrey; Engstrom, Kenneth M.

PA USA

SO U.S. Pat. Appl. Publ., 53 pp., Cont.-in-part of U.S. Ser. No. 94,265. CODEN: USXXCO

DT Patent

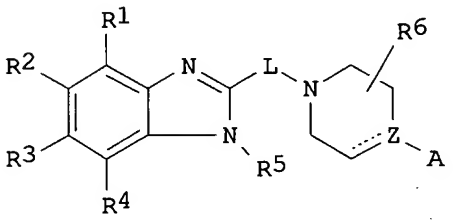
LA English

FAN.CNT 2

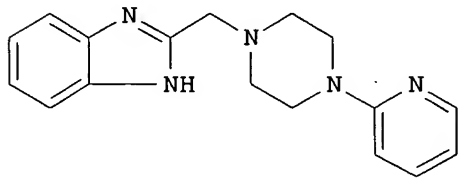
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003162790	A1	20030828	US 2002-236812	20020906
	US 2002169167	A1	20021114	US 2002-94265	20020308
	CA 2478028	AA	20030918	CA 2003-2478028	20030304

WO 2003076431 A1 20030918 WO 2003-US6406 20030304
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
BR 2003005708 A 20040928 BR 2003-5708 20030304
EP 1483258 A1 20041208 EP 2003-716268 20030304
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
PRAI US 2001-274805P P 20010309
US 2001-296078P P 20010605
US 2002-94265 A2 20020308
US 2001-340452P P 20011214
US 2002-236812 A 20020906
WO 2003-US6406 W 20030304
OS MARPAT 139:214467

GI



I



II

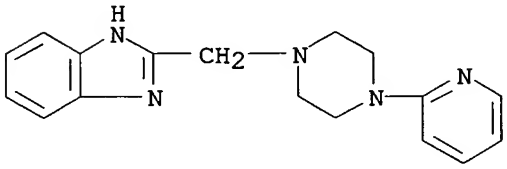
AB Title compds. (I) [wherein A = (un)substituted Ph, pyridinyl, pyrimidinyl, thienyl, pyrrolyl, furyl, imidazolyl, pyrazolyl, (is)oxazolyl, (iso)thiazolyl, triazolyl, tetrazolyl, etc.; L = CH2, CH2CH2, CH2CH2CH2, or CH2CH2CH2CH2; R1-R4 = independently H, alkoxy(carbonyl), alkenyl, (halo)alkyl, alkylthio, alkylsulfinyl, alkylsulfonyl, alkynyl, alkylcarbonyl(oxy), CO2H, CN, CHO, halo(alkoxy), OH, hydroxyalkyl, SH, NO2, or (un)substituted amino or carbamoyl; R5 = H, alkoxycarbonyl, alkyl, (cyclo)alkylcarbonyl, arylcarbonyl, heterocyclylcarbonyl, or (un)substituted carbamoyl; R6 = H or alkyl; Z = N, C, or CH; or pharmaceutically acceptable salt, ester, amide, or prodrug thereof] were prepd. as dopamine agonists (no data) for the treatment of sexual dysfunction. For example, 2-chloromethylbenzimidazole and TEA were added

to 1-(2-pyridyl)piperazine in DMF and the soln. stirred at 20.degree. for 16 h to give 2-[(4-pyridin-2-ylpiperazin-1-yl)methyl]-1H-benzimidazole (II) in 72% yield. The latter induced penile erection in Wistar rats with an incidence of 83% at a dose of 0.03 .mu.mol/kg without inducing emesis.

IT **70006-24-5P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(dopamine agonist; prepn. of (heterocyclylalkyl)benzimidazoles from heterocycles and (haloalkyl)benzimidazoles for treatment of sexual dysfunction)

RN 70006-24-5 CAPLUS

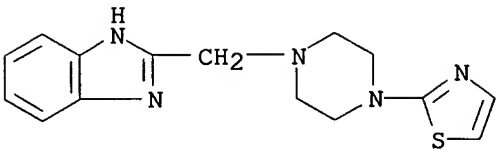
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



IT **70006-25-6P**, 2-[[4-(1,3-Thiazol-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-17-9P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole maleate (1:1) **474417-18-0P**, 2-[[4-(Pyrimidin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-19-1P**, 2-[[4-(6-Methylpyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-20-4P**, 2-[4-[(1H-Benzimidazol-2-yl)methyl]piperazin-1-yl]nicotinonitrile **474417-21-5P**, 5,7-Dibromo-2-[[4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-22-6P**, 5-Fluoro-2-[[4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-24-8P**, Isobutyl 2-[[4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole-1-carboxylate **474417-25-9P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1-(pyrrolidin-1-ylcarbonyl)-1H-benzimidazole **474417-26-0P**, N,N-Dimethyl-2-[[4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole-1-carboxamide **474417-39-5P**, 2-[[2-Methyl-4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-41-9P**, 2-[[(2S)-2-Methyl-4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-43-1P**, 2-[[(2R)-2-Methyl-4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-45-3P**, N-[2-[4-[(1H-Benzimidazol-2-yl)methyl]piperazin-1-yl]pyridin-3-yl]methanesulfonamide **474417-47-5P**, 2-[[4-(3-Fluoropyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-48-6P**, 6-[4-[(1H-Benzimidazol-2-yl)methyl]piperazin-1-yl]pyridin-3-ol **474417-51-1P**, 2-[[4-(3-Methylpyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-52-2P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole bis((L)tartrate)
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(dopamine agonist; prepn. of (heterocyclylalkyl)benzimidazoles from heterocycles and (haloalkyl)benzimidazoles for treatment of sexual dysfunction)

RN 70006-25-6 CAPLUS

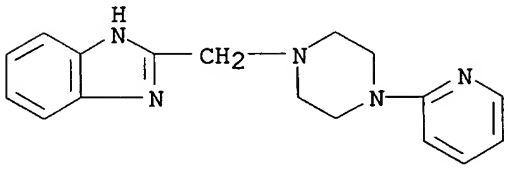
CN 1H-Benzimidazole, 2-[[4-(2-thiazolyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 474417-17-9 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

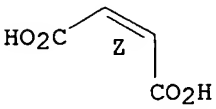
CRN 70006-24-5
CMF C17 H19 N5



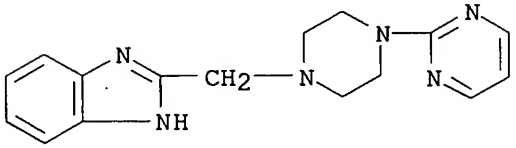
CM 2

CRN 110-16-7
CMF C4 H4 O4

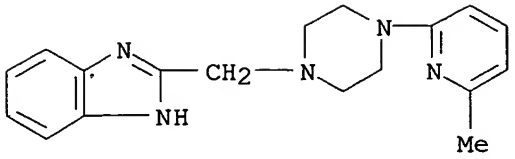
Double bond geometry as shown.



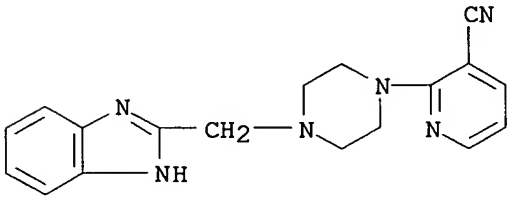
RN 474417-18-0 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyrimidinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



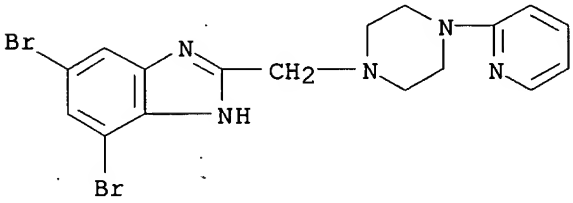
RN 474417-19-1 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(6-methyl-2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



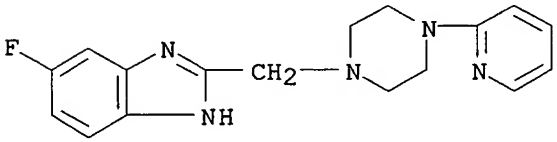
RN 474417-20-4 CAPLUS
CN 3-Pyridinecarbonitrile, 2-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)



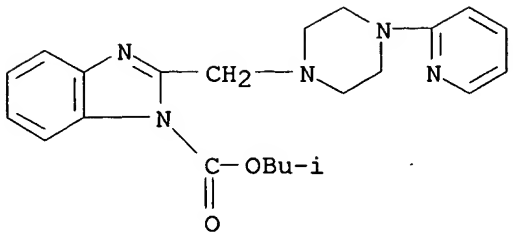
RN 474417-21-5 CAPLUS
CN 1H-Benzimidazole, 4,6-dibromo-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



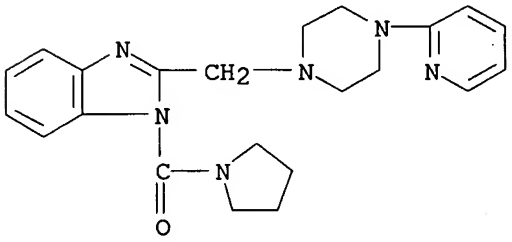
RN 474417-22-6 CAPLUS
CN 1H-Benzimidazole, 5-fluoro-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



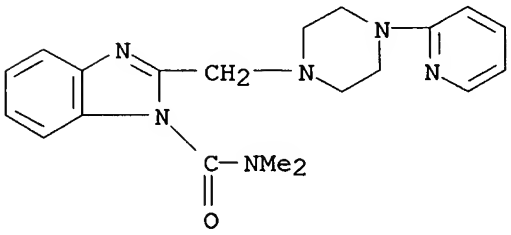
RN 474417-24-8 CAPLUS
CN 1H-Benzimidazole-1-carboxylic acid, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, 2-methylpropyl ester (9CI) (CA INDEX NAME)



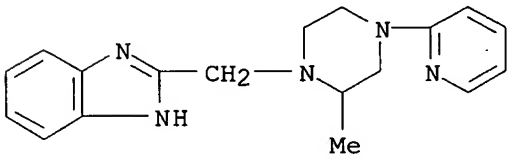
RN 474417-25-9 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1-(1-pyrrolidinylcarbonyl)- (9CI) (CA INDEX NAME)



RN 474417-26-0 CAPLUS
CN 1H-Benzimidazole-1-carboxamide, N,N-dimethyl-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

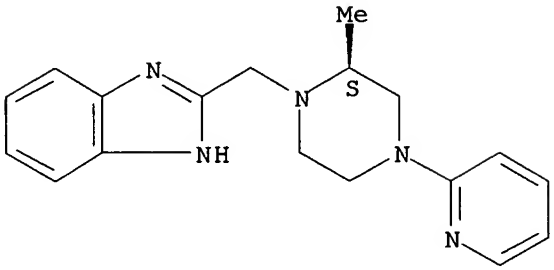


RN 474417-39-5 CAPLUS
CN 1H-Benzimidazole, 2-[[2-methyl-4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



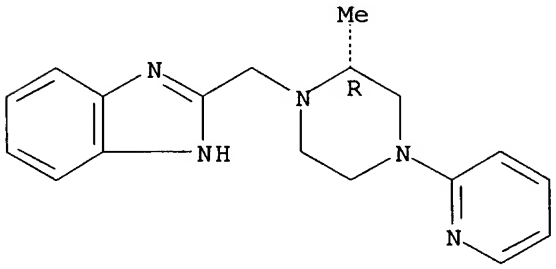
RN 474417-41-9 CAPLUS
CN 1H-Benzimidazole, 2-[[(2S)-2-methyl-4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

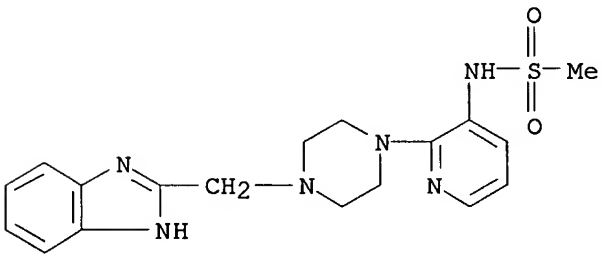


RN 474417-43-1 CAPLUS
CN 1H-Benzimidazole, 2-[[(2R)-2-methyl-4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

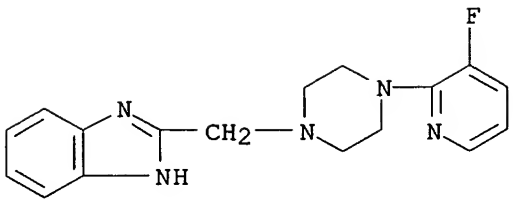
Absolute stereochemistry.



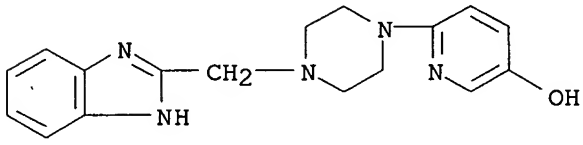
RN 474417-45-3 CAPLUS
CN Methanesulfonamide, N-[2-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]-3-pyridinyl]- (9CI) (CA INDEX NAME)



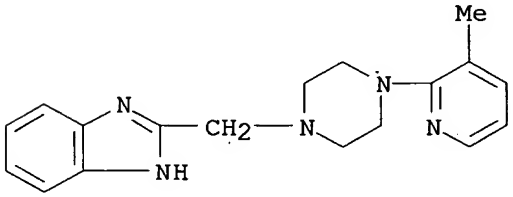
RN 474417-47-5 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(3-fluoro-2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 474417-48-6 CAPLUS
CN 3-Pyridinol, 6-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)



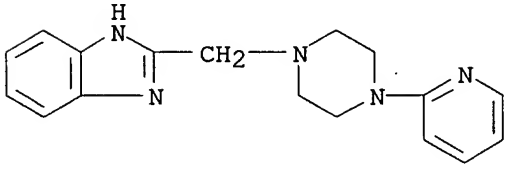
RN 474417-51-1 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(3-methyl-2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 474417-52-2 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, (2R,3R)-2,3-dihydroxybutanedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 70006-24-5
CMF C17 H19 N5

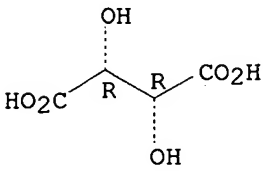


CM 2

CRN 87-69-4

CMF C4 H6 O6

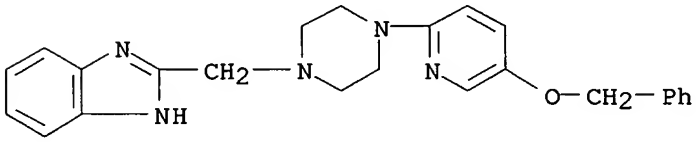
Absolute stereochemistry.



IT **474417-50-0P**, 2-[[4-[5-(Benzyloxy)pyridin-2-yl]piperazin-1-yl]methyl]-1H-benzimidazole
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of (heterocyclylalkyl)benzimidazoles from heterocycles and (haloalkyl)benzimidazoles for treatment of sexual dysfunction)

RN 474417-50-0 CAPLUS

CN 1H-Benzimidazole, 2-[[4-[5-(phenylmethoxy)-2-pyridinyl]-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



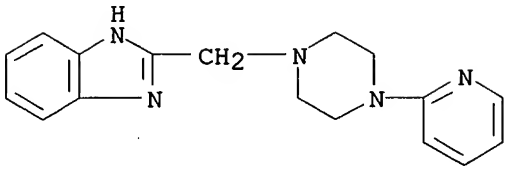
IT **587870-74-4P 587870-75-5P 587870-76-6P**
587870-77-7P 587870-78-8P 587870-79-9P
587870-80-2P 587870-81-3P 587870-82-4P
587870-83-5P 587870-84-6P 587870-85-7P
587870-86-8P 587870-87-9P 587870-88-0P
587870-89-1P 587870-90-4P 587870-91-5P
587870-92-6P 587870-93-7P 587870-94-8P
587870-95-9P 587870-96-0P 587870-97-1P
587870-98-2P 587870-99-3P 587871-00-9P
587871-01-0P 587871-02-1P 587871-03-2P
587871-04-3P 587871-05-4P 587871-06-5P
587871-07-6P 587871-08-7P 587871-09-8P
587871-10-1P 587871-11-2P 587871-12-3P
587871-13-4P 587871-14-5P 587871-15-6P
587871-16-7P 587871-17-8P 587871-18-9P
587871-19-0P 587871-20-3P 587871-21-4P
587871-22-5P 587871-23-6P 587871-24-7P
587871-25-8P 587871-27-0P 587871-29-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of (heterocyclylalkyl)benzimidazoles from heterocycles and (haloalkyl)benzimidazoles for treatment of sexual dysfunction)

RN 587870-74-4 CAPLUS

CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, phosphate (1:2) (9CI) (CA INDEX NAME)

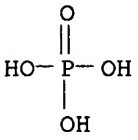
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

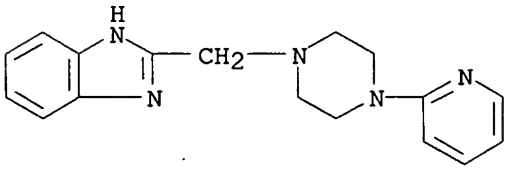
CRN 7664-38-2
CMF H3 O4 P



RN 587870-75-5 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, sulfate (1:2) (9CI) (CA INDEX NAME)

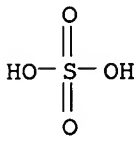
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

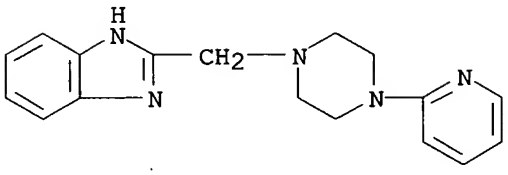
CRN 7664-93-9
CMF H2 O4 S



RN 587870-76-6 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, (2E)-2-butenedioate (2:3) (9CI) (CA INDEX NAME)

CM 1

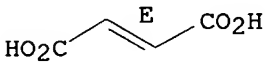
CRN 70006-24-5
CMF C17 H19 N5



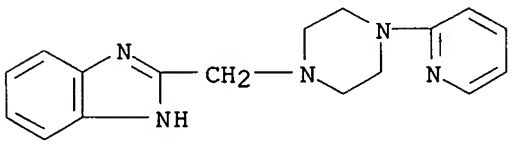
CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 587870-77-7 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, trihydrochloride (9CI) (CA INDEX NAME)

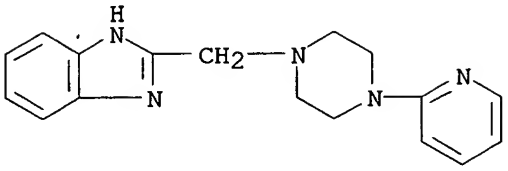


●3 HCl

RN 587870-78-8 CAPLUS
CN Hexanedioic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

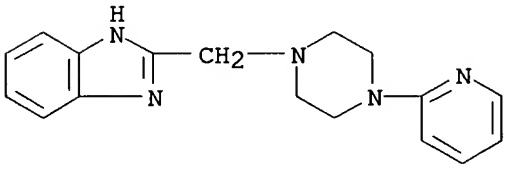
CRN 124-04-9
CMF C6 H10 O4

$HO_2C-(CH_2)_4-CO_2H$

RN 587870-79-9 CAPLUS
CN Alginic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 70006-24-5
CMF C17 H19 N5



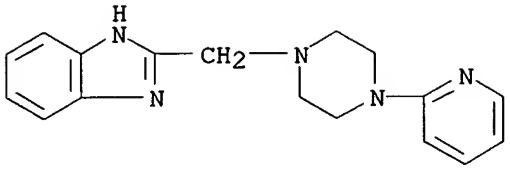
CM 2

CRN 9005-32-7
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 587870-80-2 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, 2-hydroxy-1,2,3-propanetricarboxylate (1:1) (9CI) (CA INDEX NAME)

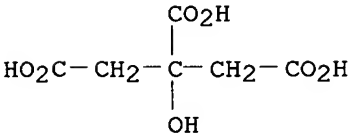
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

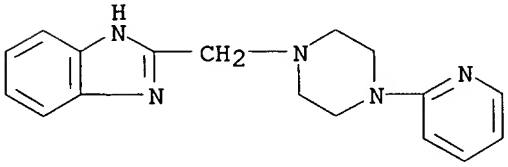
CRN 77-92-9
CMF C6 H8 O7



RN 587870-81-3 CAPLUS
CN L-Aspartic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

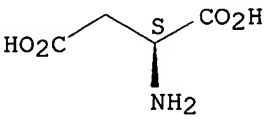
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 56-84-8
CMF C4 H7 N O4

Absolute stereochemistry. Rotation (+).

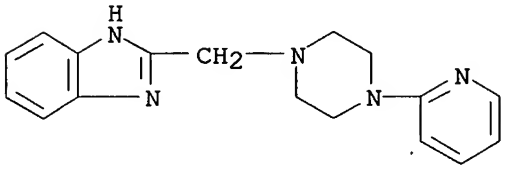


RN 587870-82-4 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, monobenzoate

(9CI) (CA INDEX NAME)

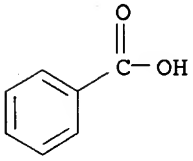
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

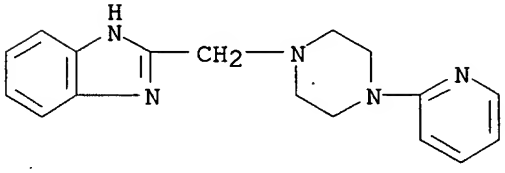
CRN 65-85-0
CMF C7 H6 O2



RN 587870-83-5 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, monobenzenesulfonate (9CI) (CA INDEX NAME)

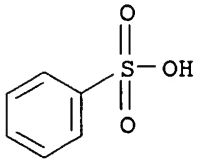
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

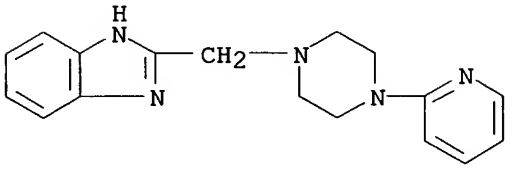
CRN 98-11-3
CMF C6 H6 O3 S



RN 587870-84-6 CAPLUS
CN Butanoic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

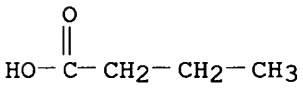
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

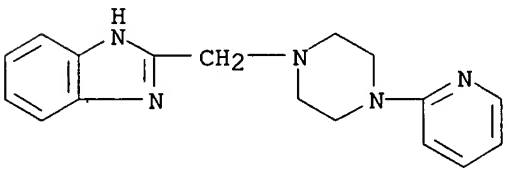
CRN 107-92-6
CMF C4 H8 O2



RN 587870-85-7 CAPLUS
CN 1,3-Cyclopentanedicarboxylic acid, 1,2,2-trimethyl-, (1R,3S)-rel-, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

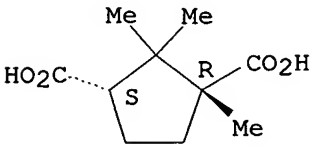
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 5394-83-2
CMF C10 H16 O4

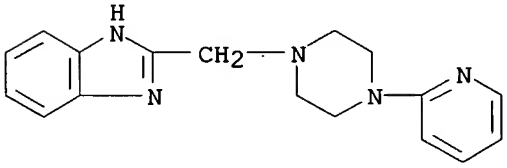
Relative stereochemistry.



RN 587870-86-8 CAPLUS
CN Bicyclo[2.2.1]heptane-1-methanesulfonic acid, 7,7-dimethyl-2-oxo-, (1S,4R)-, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

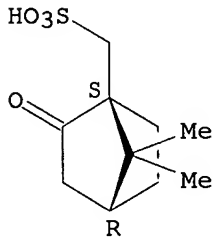
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 3144-16-9
CMF C10 H16 O4 S

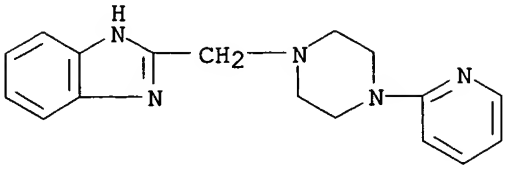
Absolute stereochemistry. Rotation (+).



RN 587870-87-9 CAPLUS
CN D-Gluconic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (2:1) (9CI) (CA INDEX NAME)

CM 1

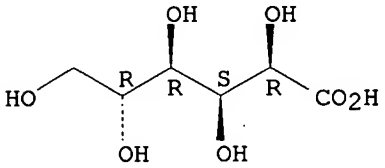
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 526-95-4
CMF C6 H12 O7

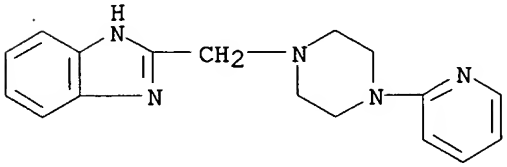
Absolute stereochemistry.



RN 587870-88-0 CAPLUS
CN 1,2,3-Propanetriol, 1-(dihydrogen phosphate), compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

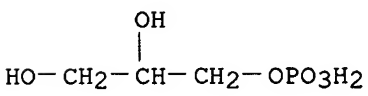
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

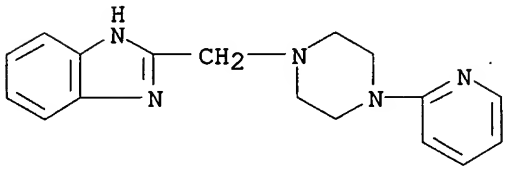
CRN 57-03-4
CMF C3 H9 O6 P



RN 587870-89-1 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, sulfate (2:1) (9CI) (CA INDEX NAME)

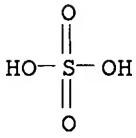
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

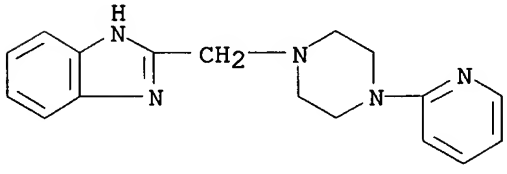
CRN 7664-93-9
CMF H2 O4 S



RN 587870-90-4 CAPLUS
CN Heptanoic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

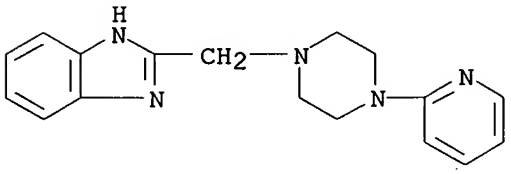
CRN 111-14-8
CMF C7 H14 O2

Me—$(CH_2)_5$—CO_2H

RN 587870-91-5 CAPLUS
CN Hexanoic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

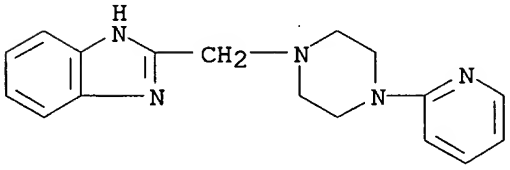
CRN 142-62-1
CMF C6 H12 O2

Me—$(CH_2)_4$—CO_2H

RN 587870-92-6 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

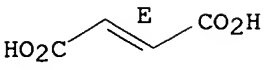
CRN 70006-24-5
CMF C17 H19 N5



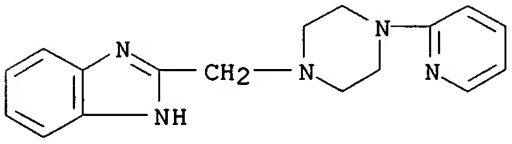
CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

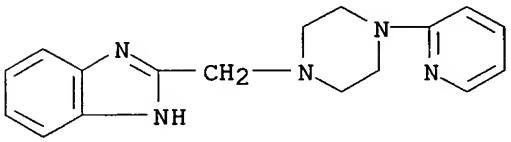


RN 587870-93-7 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



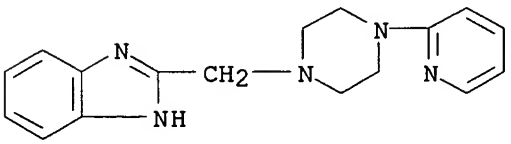
● HCl

RN 587870-94-8 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, dihydrochloride (9CI) (CA INDEX NAME)



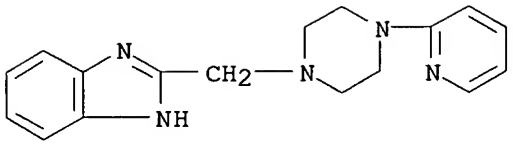
●2 HCl

RN 587870-95-9 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

RN 587870-96-0 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, monohydriodide (9CI) (CA INDEX NAME)

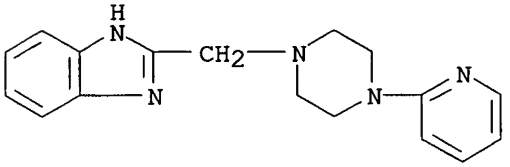


● HI

RN 587870-97-1 CAPLUS
CN Ethanesulfonic acid, 2-hydroxy-, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

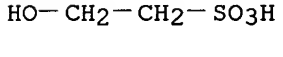
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

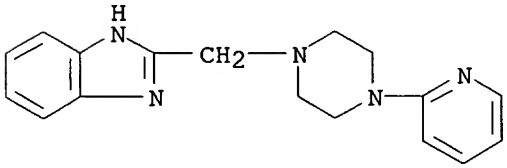
CRN 107-36-8
CMF C2 H6 O4 S



RN 587870-98-2 CAPLUS
CN Propanoic acid, 2-hydroxy-, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

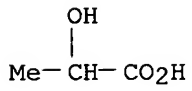
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

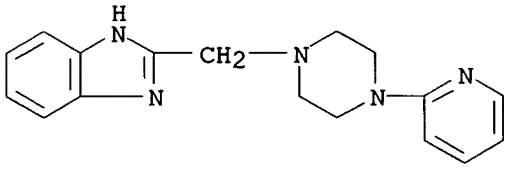
CRN 50-21-5
CMF C3 H6 O3



RN 587870-99-3 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, monomethanesulfonate (9CI) (CA INDEX NAME)

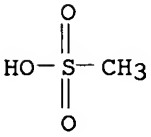
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

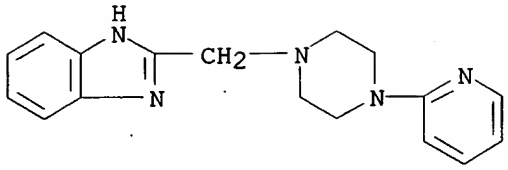
CRN 75-75-2
CMF C H4 O3 S



RN 587871-00-9 CAPLUS
CN 3-Pyridinecarboxylic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

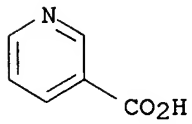
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

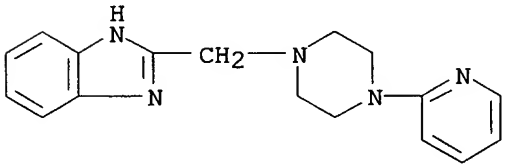
CRN 59-67-6
CMF C6 H5 N O2



RN 587871-01-0 CAPLUS
CN 2-Naphthalenesulfonic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

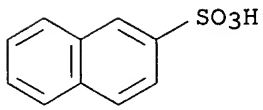
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

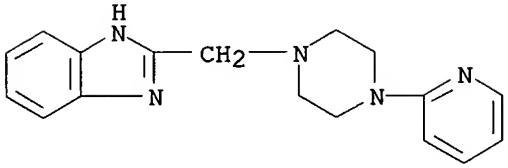
CRN 120-18-3
CMF C10 H8 O3 S



RN 587871-02-1 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

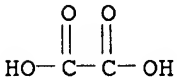
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

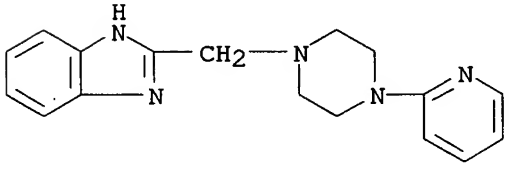
CRN 144-62-7
CMF C2 H2 O4



RN 587871-03-2 CAPLUS
CN 2-Naphthalenecarboxylic acid, 4,4'-methylenebis[3-hydroxy-, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

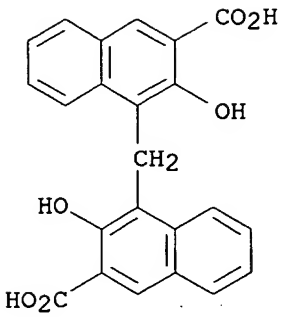
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

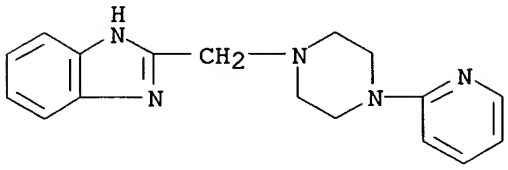
CRN 130-85-8
CMF C23 H16 O6



RN 587871-04-3 CAPLUS
CN Pectin, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 70006-24-5
CMF C17 H19 N5



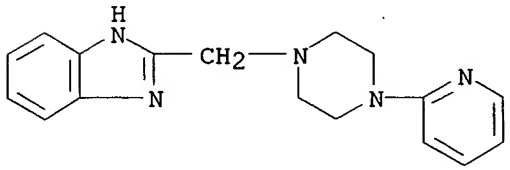
CM 2

CRN 9000-69-5
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 587871-05-4 CAPLUS
CN Peroxymonosulfuric acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

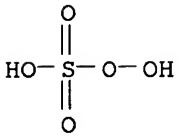
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

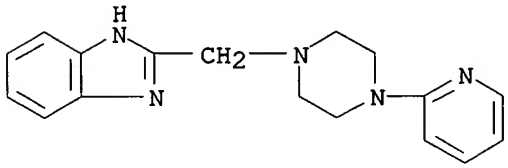
CRN 7722-86-3
CMF H2 O5 S



RN 587871-06-5 CAPLUS
CN Benzenepropanoic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

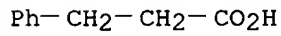
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

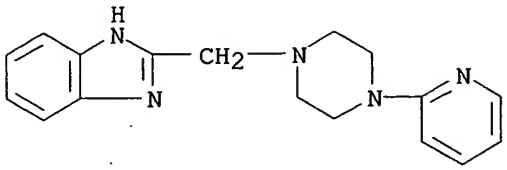
CRN 501-52-0
CMF C9 H10 O2



RN 587871-07-6 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

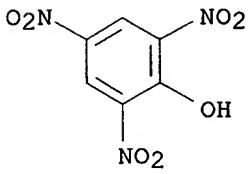
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

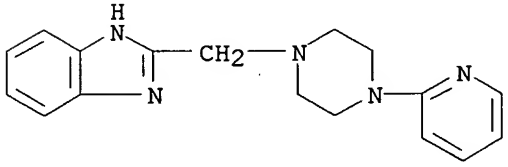
CRN 88-89-1
CMF C6 H3 N3 O7



RN 587871-08-7 CAPLUS
CN Propanoic acid, 2,2-dimethyl-, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

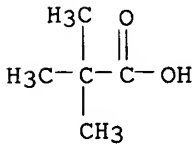
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 75-98-9
CMF C5 H10 O2

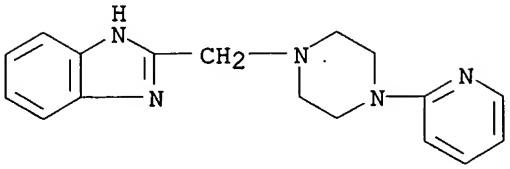


RN 587871-09-8 CAPLUS
CN Propanoic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-

benzimidazole (1:1) (9CI) (CA INDEX NAME)

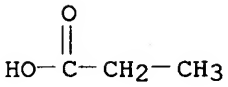
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

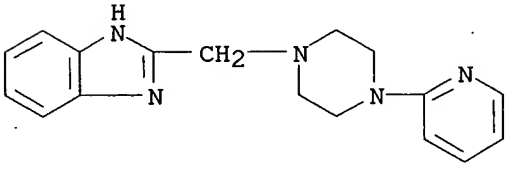
CRN 79-09-4
CMF C3 H6 O2



RN 587871-10-1 CAPLUS
CN Butanedioic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

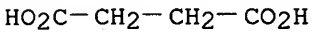
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 110-15-6
CMF C4 H6 O4

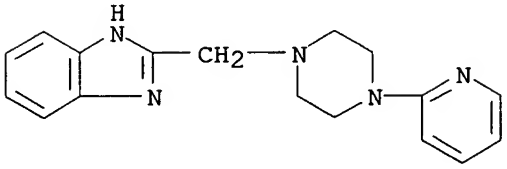


RN 587871-11-2 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, sulfate

(1:1) (9CI) (CA INDEX NAME)

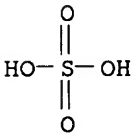
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

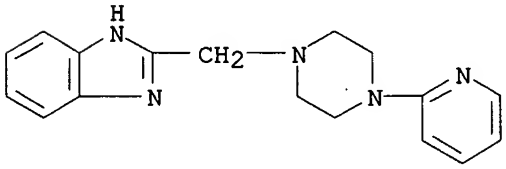
CRN 7664-93-9
CMF H2 O4 S



RN 587871-12-3 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, 2,3-dihydroxybutanedioate (1:2) (9CI) (CA INDEX NAME)

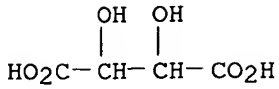
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

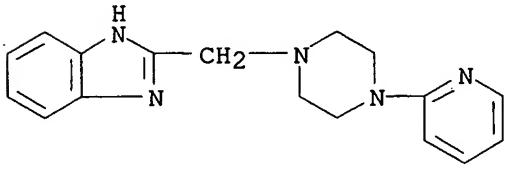
CRN 526-83-0
CMF C4 H6 O6



RN 587871-13-4 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, 2,3-dihydroxybutanedioate (1:1) (9CI) (CA INDEX NAME)

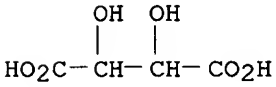
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

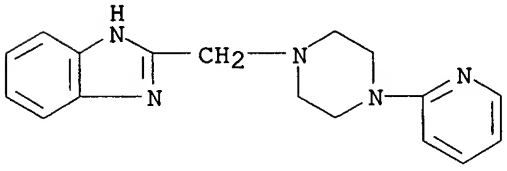
CRN 526-83-0
CMF C4 H6 O6



RN 587871-14-5 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 70006-24-5
CMF C17 H19 N5

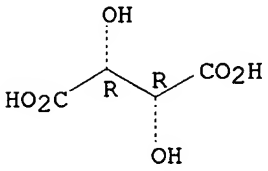


CM 2

CRN 87-69-4

CMF C4 H6 O6

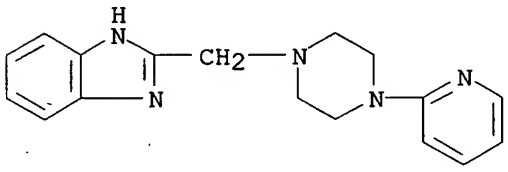
Absolute stereochemistry.



RN 587871-15-6 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, (2S,3S)-2,3-dihydroxybutanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

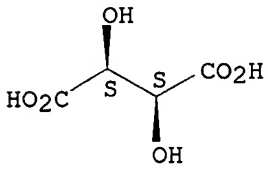
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 147-71-7
CMF C4 H6 O6

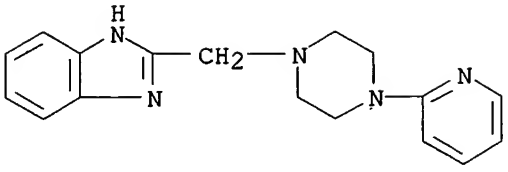
Absolute stereochemistry.



RN 587871-16-7 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, rel-(2R,3R)-2,3-dihydroxybutanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

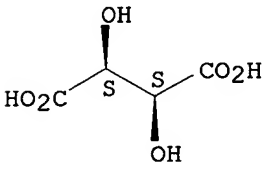
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 133-37-9
CMF C4 H6 O6

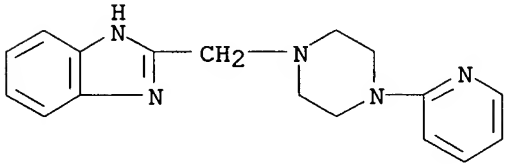
Relative stereochemistry.



RN 587871-17-8 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, rel-(2R,3R)-2,3-dihydroxybutanedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

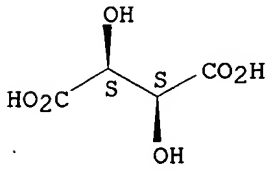
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 133-37-9
CMF C4 H6 O6

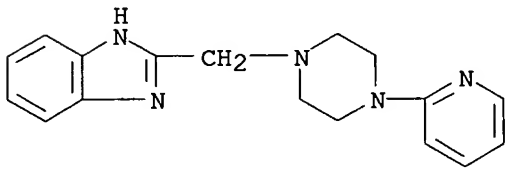
Relative stereochemistry.



RN 587871-18-9 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, rel-(2R,3S)-2,3-dihydroxybutanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

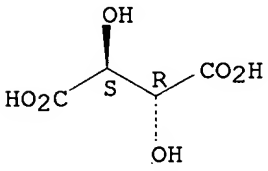
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 147-73-9
CMF C4 H6 O6

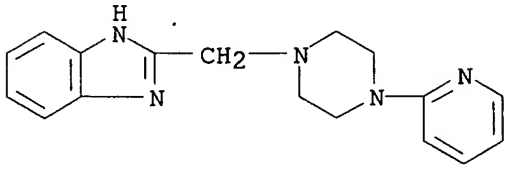
Relative stereochemistry.



RN 587871-19-0 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, rel-(2R,3S)-2,3-dihydroxybutanedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

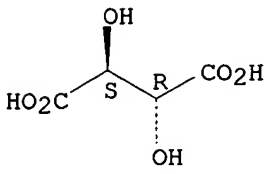
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 147-73-9
CMF C4 H6 O6

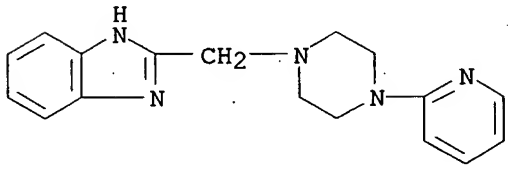
Relative stereochemistry.



RN 587871-20-3 CAPLUS
CN Thiocyanic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

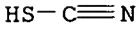
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

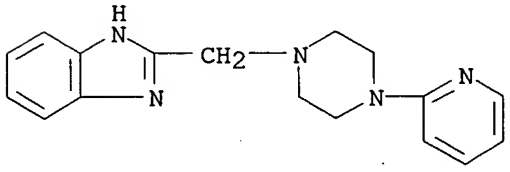
CRN 463-56-9
CMF C H N S



RN 587871-21-4 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, phosphate (1:1) (9CI) (CA INDEX NAME)

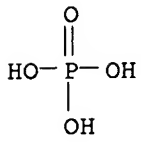
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

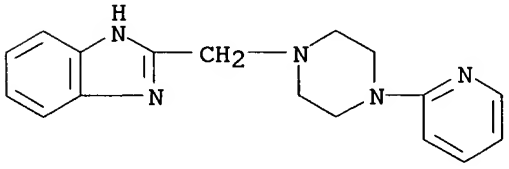
CRN 7664-38-2
CMF H3 O4 P



RN 587871-22-5 CAPLUS
CN L-Glutamic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

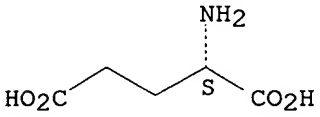
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 56-86-0
CMF C5 H9 N O4

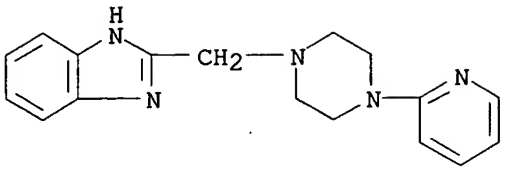
Absolute stereochemistry.



RN 587871-23-6 CAPLUS
CN Carbonic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

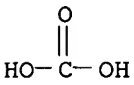
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

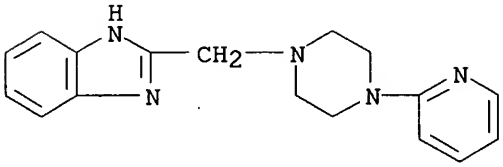
CRN 463-79-6
CMF C H2 O3



RN 587871-24-7 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, (2S,3S)-2,3-dihydroxybutanedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

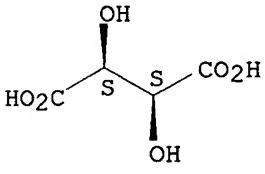
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 147-71-7
CMF C4 H6 O6

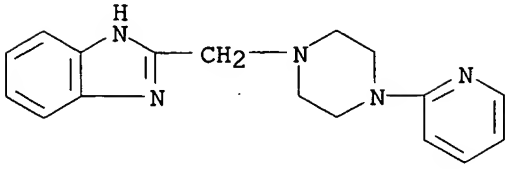
Absolute stereochemistry.



RN 587871-25-8 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, compd. with bromine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

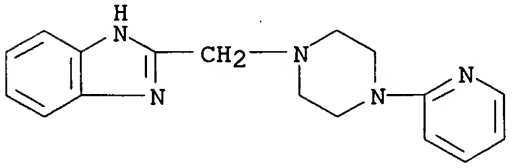
CRN 7726-95-6
CMF Br2

Br—Br

RN 587871-27-0 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, mono(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

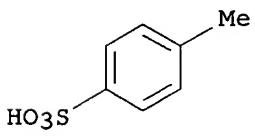
CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 104-15-4
CMF C7 H8 O3 S

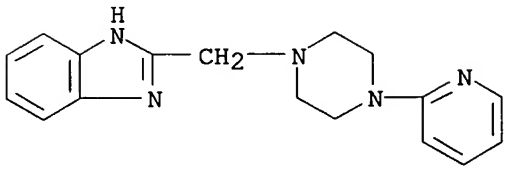


RN 587871-29-2 CAPLUS

CN Undecanoic acid, compd. with 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 112-37-8
CMF C11 H22 O2

$HO_2C-(CH_2)_9-Me$

L6 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:23532 CAPLUS
DN 138:89812
TI Preparation of heteroalkyl-substituted benzimidazoles useful in treating sexual dysfunction
IN Cowart, Marlon D.; Bhatia, Pramila A.; Daanen, Jerome F.; Stewart, Andrew O.; Patel, Meena V.; Kolasa, Teodozyj; Brioni, Jorge D.
PA USA
SO U.S. Pat. Appl. Publ., 44 pp., Cont.-in-part of U.S. Ser. No. 803,537, abandoned.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003008878	A1	20030109	US 2001-874484	20010605
	US 2002169166	A1	20021114	US 2001-17939	20011214
	CA 2439943	AA	20021107	CA 2002-2439943	20020306
	WO 2002088093	A1	20021107	WO 2002-US7791	20020306
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	EP 1373220	A1	20040102	EP 2002-731130	20020306

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CN	1516693	A	20040728	CN 2002-809382	20020306
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BR	2002005812	A	20050503	BR 2002-5812	20020306
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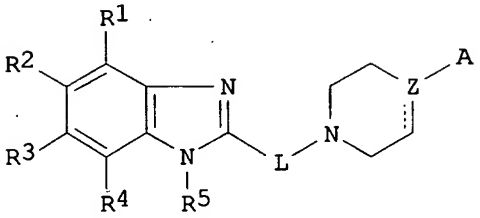
OS MARPAT 138:89812

GI



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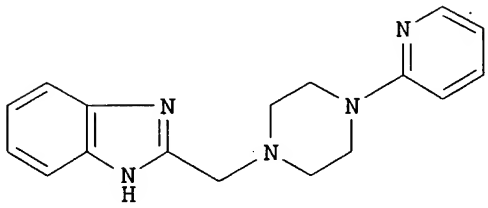


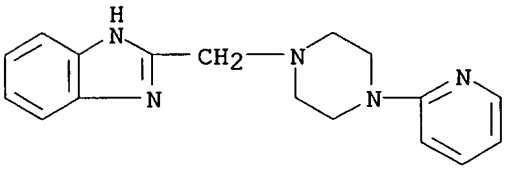
II

AB Title compds. I [A = (hetero)aryl; L = CH2, CH2CH2, etc.; R1-4 = H, alkoxy, alkenyl, alkyl, alkylsulfinyl, alkylsulfonyl, etc.; R5 = H, alkoxycarbonyl, alkyl, etc.; Z = N, C(H)] are prepd. For instance, 1-(2-pyridyl)piperazine is alkylated with 2-chloromethylbenzimidazole (DMF, Et3N, 16 h) to give II. II induced statistically significant penile erections in rats after s.c. administration for doses of 0.01 .mu.mol/kg to 0.10 .mu.mol/kg. I are useful for the treatment of sexual dysfunction.

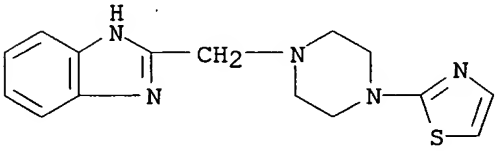
IT **70006-24-5P**, 2-[(4-(Pyridin-2-yl)piperazin-1-yl)methyl]-1H-benzimidazole **70006-25-6P**, 2-[[4-(1,3-Thiazol-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-17-9P** **474417-18-0P**, 2-[(4-Pyrimidin-2-ylpiperazin-1-yl)methyl]-1H-benzimidazole **474417-20-4P**, 2-[4-(1H-Benzimidazol-2-ylmethyl)piperazin-1-yl]nicotinonitrile **474417-21-5P**, 5,7-Dibromo-2-[(4-(pyridin-2-yl)piperazin-1-yl)methyl]-1H-benzimidazole **474417-22-6P**, 5-Fluoro-2-[(4-(pyridin-2-yl)piperazin-1-yl)methyl]-1H-benzimidazole **474417-24-8P**, Isobutyl 2-[(4-(pyridin-2-yl)piperazin-1-yl)methyl]-1H-benzimidazole-1-carboxylate **474417-25-9P**, 2-[(4-(Pyridin-2-yl)piperazin-1-yl)methyl]-1-(pyrrolidin-1-ylcarbonyl)-1H-benzimidazole **474417-26-0P**, N,N-Dimethyl-2-[(4-(pyridin-2-

yl)piperazin-1-yl)methyl]-1H-benzimidazole-1-carboxamide **474417-48-6P**, 6-[4-((1H-Benzimidazol-2-yl)methyl)piperazin-1-yl]pyridin-3-ol **474417-51-1P**, 2-[[4-(3-Methylpyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of heteroalkyl-substituted benzimidazoles as dopamine agonists useful in treating sexual dysfunction)

RN 70006-24-5 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



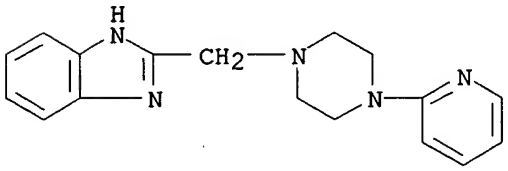
RN 70006-25-6 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-thiazolyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 474417-17-9 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

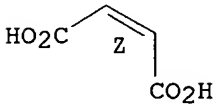
CRN 70006-24-5
CMF C17 H19 N5



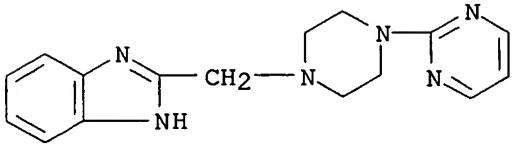
CM 2

CRN 110-16-7
CMF C4 H4 O4

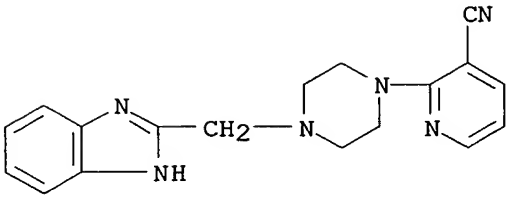
Double bond geometry as shown.



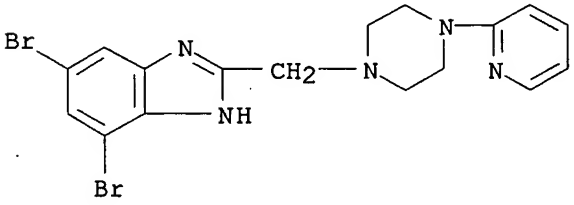
RN 474417-18-0 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyrimidinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



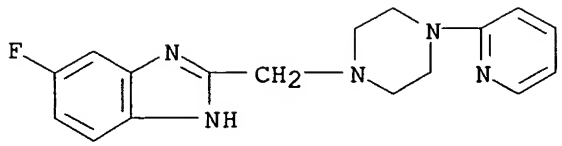
RN 474417-20-4 CAPLUS
CN 3-Pyridinecarbonitrile, 2-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)



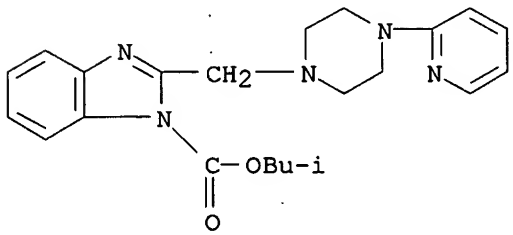
RN 474417-21-5 CAPLUS
CN 1H-Benzimidazole, 4,6-dibromo-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



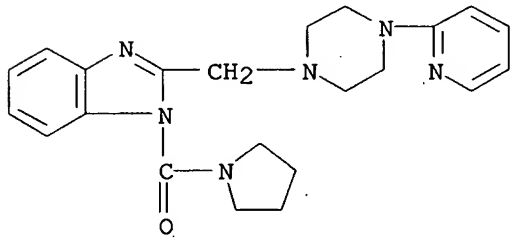
RN 474417-22-6 CAPLUS
CN 1H-Benzimidazole, 5-fluoro-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



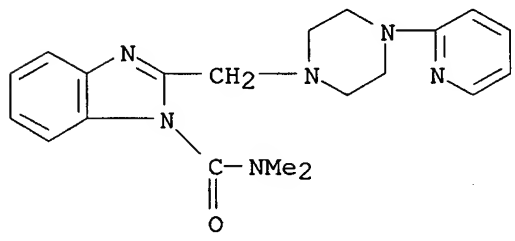
RN 474417-24-8 CAPLUS
CN 1H-Benzimidazole-1-carboxylic acid, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, 2-methylpropyl ester (9CI) (CA INDEX NAME)



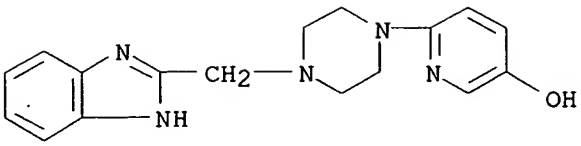
RN 474417-25-9 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1-(1-pyrrolidinylcarbonyl)- (9CI) (CA INDEX NAME)



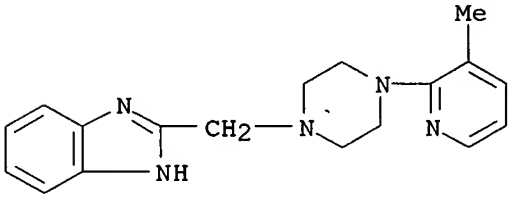
RN 474417-26-0 CAPLUS
CN 1H-Benzimidazole-1-carboxamide, N,N-dimethyl-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 474417-48-6 CAPLUS
CN 3-Pyridinol, 6-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)



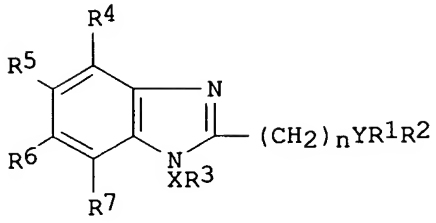
RN 474417-51-1 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(3-methyl-2-pyridinyl)-1-piperazinyl]methyl]-
(9CI) (CA INDEX NAME)



L6 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:888718 CAPLUS
DN 137:384842
TI Benzimidazole compounds and antiviral uses thereof
IN Lackey, John William; Kinder, Daniel S.; Tvermoes, Nicolai A.
PA Trimeris, Inc., USA
SO PCT Int. Appl., 143 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002092575	A1	20021121	WO 2002-US14598	20020510
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003119754	A1	20030626	US 2002-141839	20020509
PRAI	US 2001-290038P	P	20010511		

OS MARPAT 137:384842
GI



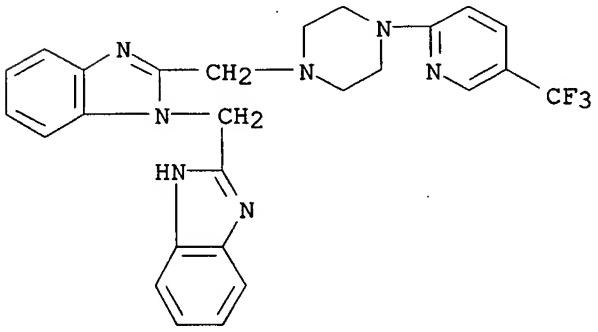
I

AB Title compds. I [R1, R2 = H, (un)substituted alkyl, cycloalkyl, heterocyclic, aryl, heteroaryl; R3 = H, halo, (un)substituted alkyl, Oh, alkoxy, aryl, heterocyclic, heteroaryl; R4-R7 = H, halo, (un)substituted alkyl, OH, alkoxy, aryl, heterocyclic, heteroaryl; X = bond, (un)substituted alkylene, C:N, CO, P, S; Y = N, P, O, S; when Y = O, S, R2 is absent; n = 0-4] were prepd. for use as virucides that inhibit membrane fusion assocd. events such as viral transmission, reduce viral load or otherwise treat viral infections, particularly that caused by Respiratory Syncytial Virus. Thus, I [R1 = cyclohexyl, R2 = CHMe2, Y = N, X = CH2, R3 = 2-quinolinyl, R4-R7 = H] had IC50 of 5.16 .mu.g/mL.

IT **475648-10-3P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of benzimidazole derivs. as virucides for treating Respiratory Syncytial Virus infections)

RN 475648-10-3 CAPLUS

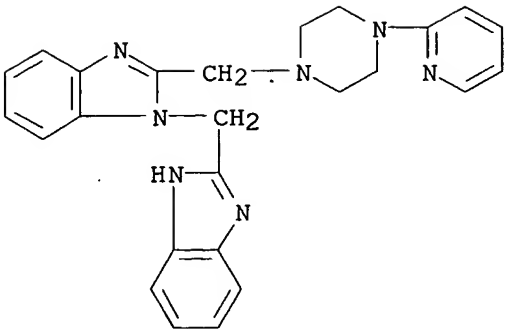
CN 1H-Benzimidazole, 1-(1H-benzimidazol-2-ylmethyl)-2-[[4-[5-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



IT **475648-98-7P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of benzimidazole derivs. as virucides for treating Respiratory Syncytial Virus infections)

RN 475648-98-7 CAPLUS

CN 1H-Benzimidazole, 1-(1H-benzimidazol-2-ylmethyl)-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



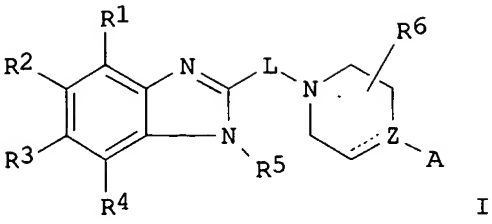
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:869583 CAPLUS
DN 137:353027
TI Preparation of 2-(piperazinylmethyl)-1H-benzimidazoles and related compounds that are useful in treating sexual dysfunction
IN Cowart, Marlon D.; Bhatia, Pramila A.; Daanen, Jerome F.; Stewart, Andrew O.; Patel, Meena V.; Kolasa, Teodozyj; Brioni, Jorge D.; Rohde, Jeffrey
PA USA
SO U.S. Pat. Appl. Publ., 53 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

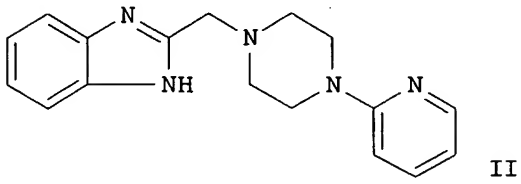
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002169167	A1	20021114	US 2002-94265	20020308
	US 2003162790	A1	20030828	US 2002-236812	20020906
	CA 2478028	AA	20030918	CA 2003-2478028	20030304
	WO 2003076431	A1	20030918	WO 2003-US6406	20030304
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	BR 2003005708	A	20040928	BR 2003-5708	20030304
	EP 1483258	A1	20041208	EP 2003-716268	20030304
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	US 2004110766	A1	20040610	US 2003-699465	20031031
PRAI	US 2001-274805P	P	20010309		
	US 2001-296078P	P	20010605		
	US 2001-340452P	P	20011214		
	US 2002-94265	A2	20020308		
	US 2002-236812	A	20020906		
	WO 2003-US6406	W	20030304		

OS MARPAT 137:353027

GI



I



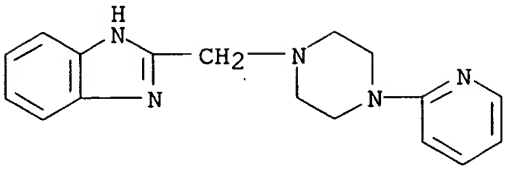
II

AB Title compds. (I) [wherein A = (un)substituted Ph, pyridinyl, pyrimidinyl, thienyl, pyrrolyl, furyl, imidazolyl, pyrazolyl, (is)oxazolyl, (iso)thiazolyl, triazolyl, tetrazolyl, etc.; L = CH2, CH2CH2, CH2CH2CH2, or CH2CH2CH2CH2; R1-R4 = independently H, alkoxy(carbonyl), alkenyl, (halo)alkyl, alkylthio, alkylsulfinyl, alkylsulfonyl, alkynyl, alkylcarbonyl(oxy), CO2H, CN, CHO, halo(alkoxy), OH, hydroxyalkyl, SH, NO2, or (un)substituted amino or carbamoyl; R5 = H, alkoxycarbonyl, alkyl, (cyclo)alkylcarbonyl, arylcarbonyl, heterocyclylcarbonyl, or (un)substituted carbamoyl; R6 = H or alkyl; Z = N, C, or CH; or pharmaceutically acceptable salt, ester, amide, or prodrug thereof] were prepd. as dopamine agonists (no data) for the treatment of sexual dysfunction. For example, 2-chloromethylbenzimidazole and TEA were added to 1-(2-pyridyl)piperazine in DMF and the soln. stirred at 20.degree. for 16 h to give 2-[(4-pyridin-2-ylpiperazin-1-yl)methyl]-1H-benzimidazole (II) in 72% yield. The latter induced penile erection in Wistar rats with an incidence of 83% at a dose of 0.03 .mu.mol/kg without inducing emesis.

IT **70006-24-5P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(dopamine agonist; prepn. of (heterocyclylalkyl)benzimidazoles from heterocycles and (haloalkyl)benzimidazoles for treatment of sexual dysfunction)

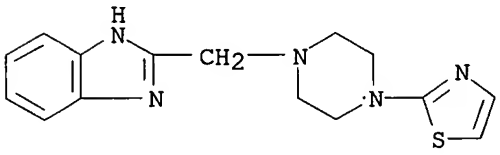
RN 70006-24-5 CAPLUS

CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



IT **70006-25-6P**, 2-[[4-(1,3-Thiazol-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-17-9P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole maleate (1:1) **474417-18-0P**, 2-[[4-(Pyrimidin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-19-1P**, 2-[[4-(6-Methylpyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-20-4P**, 2-[4-[(1H-Benzimidazol-2-yl)methyl]piperazin-1-yl]nicotinonitrile **474417-21-5P**, 5,7-Dibromo-2-[[4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-22-6P**, 5-Fluoro-2-[[4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-24-8P**, Isobutyl 2-[[4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole-1-carboxylate **474417-25-9P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1-(pyrrolidin-1-ylcarbonyl)-1H-benzimidazole **474417-26-0P**, N,N-Dimethyl-2-[[4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole-1-carboxamide **474417-39-5P**, 2-[[2-Methyl-4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-41-9P**, 2-[[(2S)-2-Methyl-4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-43-1P**, 2-[[(2R)-2-Methyl-4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-45-3P**, N-[2-[4-[(1H-Benzimidazol-2-yl)methyl]piperazin-1-yl]pyridin-3-yl]methanesulfonamide **474417-47-5P**, 2-[[4-(3-Fluoropyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-48-6P**, 6-[4-[(1H-Benzimidazol-2-yl)methyl]piperazin-1-yl]pyridin-3-ol **474417-51-1P**, 2-[[4-(3-Methylpyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-52-2P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole bis((L)tartrate)
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(dopamine agonist; prepn. of (heterocyclylalkyl)benzimidazoles from heterocycles and (haloalkyl)benzimidazoles for treatment of sexual dysfunction)

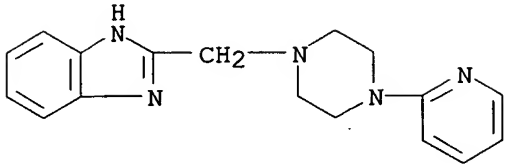
RN 70006-25-6 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-thiazolyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 474417-17-9 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

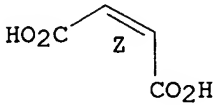
CRN 70006-24-5
CMF C17 H19 N5



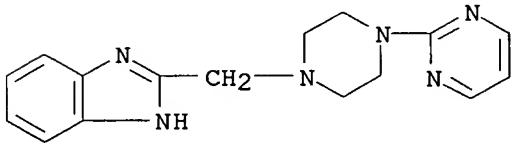
CM 2

CRN 110-16-7
CMF C4 H4 O4

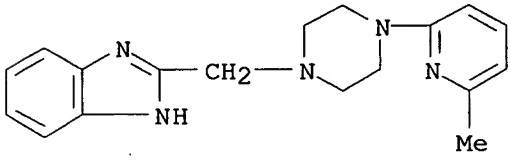
Double bond geometry as shown.



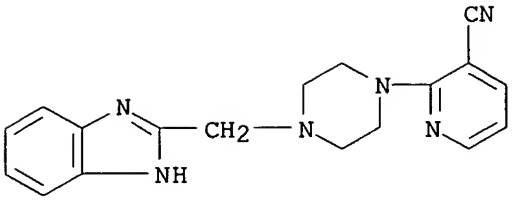
RN 474417-18-0 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyrimidinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



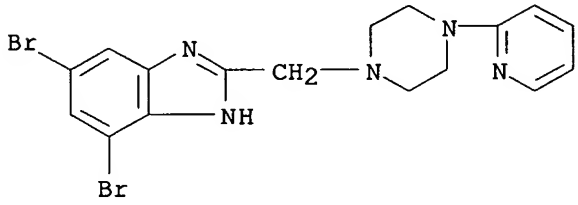
RN 474417-19-1 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(6-methyl-2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



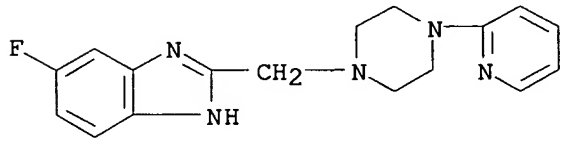
RN 474417-20-4 CAPLUS
CN 3-Pyridinecarbonitrile, 2-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)



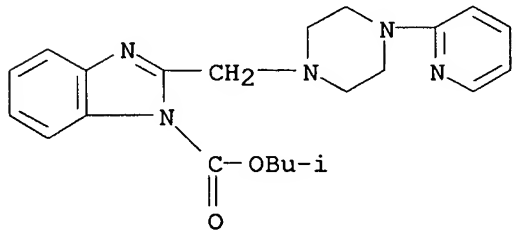
RN 474417-21-5 CAPLUS
CN 1H-Benzimidazole, 4,6-dibromo-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-
(9CI) (CA INDEX NAME)



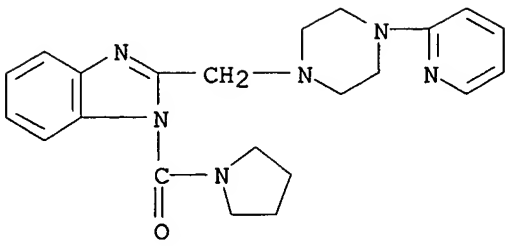
RN 474417-22-6 CAPLUS
CN 1H-Benzimidazole, 5-fluoro-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-
(9CI) (CA INDEX NAME)



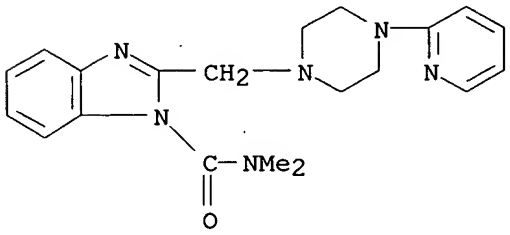
RN 474417-24-8 CAPLUS
CN 1H-Benzimidazole-1-carboxylic acid, 2-[[4-(2-pyridinyl)-1-
piperazinyl]methyl]-, 2-methylpropyl ester (9CI) (CA INDEX NAME)



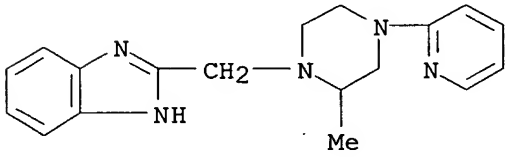
RN 474417-25-9 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1-(1-
pyrrolidinylcarbonyl)- (9CI) (CA INDEX NAME)



RN 474417-26-0 CAPLUS
CN 1H-Benzimidazole-1-carboxamide, N,N-dimethyl-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

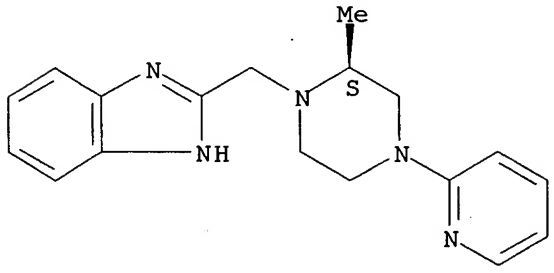


RN 474417-39-5 CAPLUS
CN 1H-Benzimidazole, 2-[[2-methyl-4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



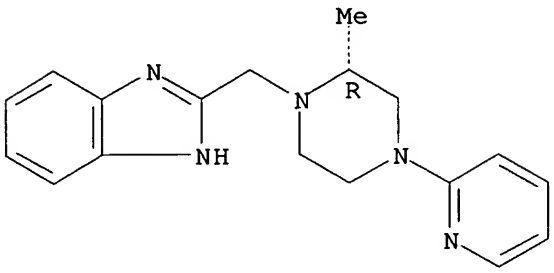
RN 474417-41-9 CAPLUS
CN 1H-Benzimidazole, 2-[[(2S)-2-methyl-4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

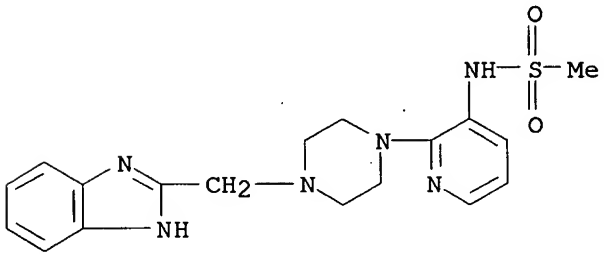


RN 474417-43-1 CAPLUS
CN 1H-Benzimidazole, 2-[[(2R)-2-methyl-4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

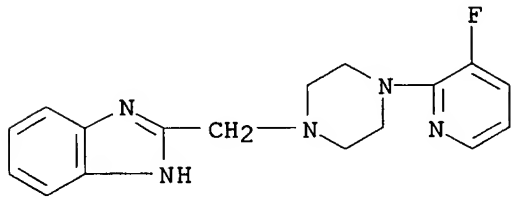
Absolute stereochemistry.



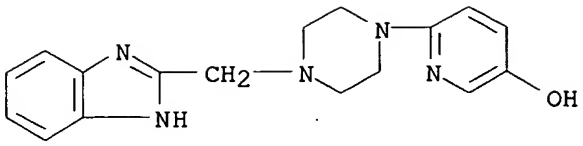
RN 474417-45-3 CAPLUS
CN Methanesulfonamide, N-[2-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]-3-pyridinyl]- (9CI) (CA INDEX NAME)



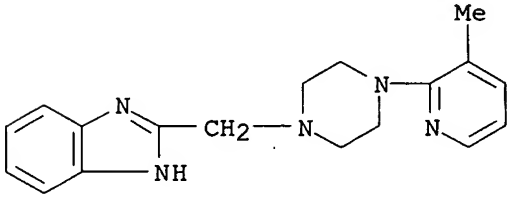
RN 474417-47-5 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(3-fluoro-2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 474417-48-6 CAPLUS
CN 3-Pyridinol, 6-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)



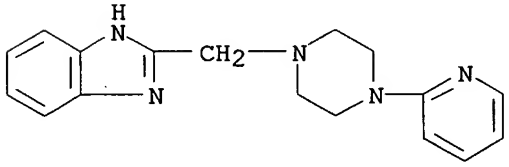
RN 474417-51-1 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(3-methyl-2-pyridinyl)-1-piperazinyl]methyl]-
(9CI) (CA INDEX NAME)



RN 474417-52-2 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-,
(2R,3R)-2,3-dihydroxybutanedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

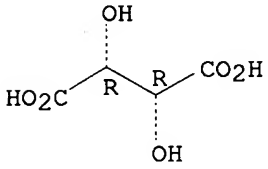
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 87-69-4
CMF C4 H6 O6

Absolute stereochemistry.

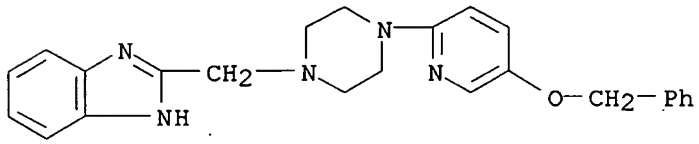


IT **474417-50-0P**, 2-[[4-[5-(Benzyloxy)pyridin-2-yl]piperazin-1-
yl]methyl]-1H-benzimidazole

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of (heterocyclylalkyl)benzimidazoles from heterocycles and (haloalkyl)benzimidazoles for treatment of sexual dysfunction)

RN 474417-50-0 CAPLUS

CN 1H-Benzimidazole, 2-[[4-[5-(phenylmethoxy)-2-pyridinyl]-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:869582 CAPLUS

DN 137:353026

TI Preparation of 2-(piperazinylmethyl)-1H-benzimidazoles and related compounds that are useful in treating sexual dysfunction

IN Cowart, Marlon D.; Bhatia, Pramila A.; Daanen, Jerome F.; Stewart, Andrew O.; Patel, Meena V.; Kolasa, Teodozyj; Brioni, Jorge D.; Rohde, Jeffrey

PA USA

SO U.S. Pat. Appl. Publ., 53 pp., Cont.-in-part of U.S. Ser. No. 874,484. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002169166	A1	20021114	US 2001-17939	20011214
	US 2003008878	A1	20030109	US 2001-874484	20010605
	CA 2439943	AA	20021107	CA 2002-2439943	20020306
	WO 2002088093	A1	20021107	WO 2002-US7791	20020306
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	JP 2005507370	T2	20050317	JP 2002-585395	20020306
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	NO 2003003959	A	20031110	NO 2003-3959	20030908
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	US 2001-17939	A	20011214		
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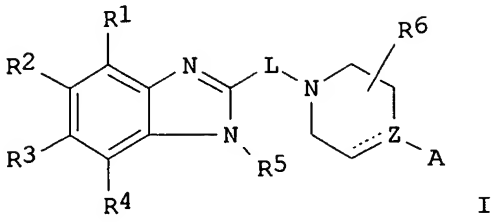
OS MARPAT 137:353026
GI



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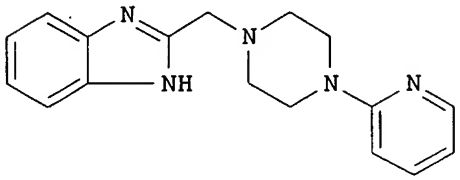


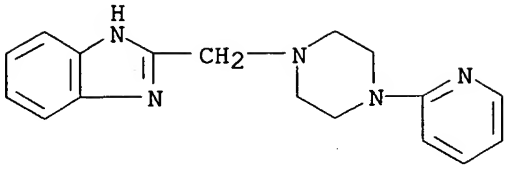
II

AB Title compds. (I) [wherein A = (un)substituted Ph, pyridinyl, pyrimidinyl, thienyl, pyrrolyl, furyl, imidazolyl, pyrazolyl, (is)oxazolyl, (iso)thiazolyl, triazolyl, tetrazolyl, etc.; L = CH2, CH2CH2, CH2CH2CH2, or CH2CH2CH2CH2; R1-R4 = independently H, alkoxy(carbonyl), alkenyl, (halo)alkyl, alkylthio, alkylsulfinyl, alkylsulfonyl, alkynyl, alkylcarbonyl(oxy), CO2H, CN, CHO, halo(alkoxy), OH, hydroxyalkyl, SH, NO2, or (un)substituted amino or carbamoyl; R5 = H, alkoxycarbonyl, alkyl, (cyclo)alkylcarbonyl, arylcarbonyl, heterocyclylcarbonyl, or (un)substituted carbamoyl; R6 = H or alkyl; Z = N, C, or CH; or pharmaceutically acceptable salt, ester, amide, or prodrug thereof] were prepd. as dopamine agonists (no data) for the treatment of sexual dysfunction. For example, 2-chloromethylbenzimidazole and TEA were added to 1-(2-pyridyl)piperazine in DMF and the soln. stirred at 20.degree. for 16 h to give 2-[(4-pyridin-2-ylpiperazin-1-yl)methyl]-1H-benzimidazole (II) in 72% yield. The latter induced penile erection in Wistar rats with an incidence of 83% at a dose of 0.03 .mu.mol/kg without inducing emesis.

IT **70006-24-5P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(dopamine agonist; prepn. of (heterocyclylalkyl)benzimidazoles from heterocycles and (haloalkyl)benzimidazoles for treatment of sexual dysfunction)

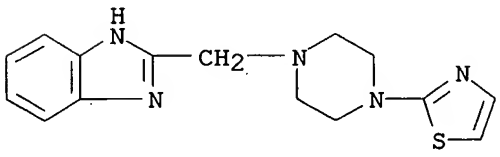
RN 70006-24-5 CAPLUS

CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



IT **70006-25-6P**, 2-[[4-(1,3-Thiazol-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-17-9P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole maleate (1:1) **474417-18-0P**, 2-[[4-(Pyrimidin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-19-1P**, 2-[[4-(6-Methylpyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-20-4P**, 2-[4-[(1H-Benzimidazol-2-yl)methyl]piperazin-1-yl]nicotinonitrile **474417-21-5P**, 5,7-Dibromo-2-[[4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-22-6P**, 5-Fluoro-2-[[4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-24-8P**, Isobutyl 2-[[4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole-1-carboxylate **474417-25-9P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1-(pyrrolidin-1-ylcarbonyl)-1H-benzimidazole **474417-26-0P**, N,N-Dimethyl-2-[[4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole-1-carboxamide **474417-39-5P**, 2-[[2-Methyl-4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-41-9P**, 2-[[(2S)-2-Methyl-4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-43-1P**, 2-[[(2R)-2-Methyl-4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-45-3P**, N-[2-[4-[(1H-Benzimidazol-2-yl)methyl]piperazin-1-yl]pyridin-3-yl]methanesulfonamide **474417-47-5P**, 2-[[4-(3-Fluoropyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-48-6P**, 6-[4-[(1H-Benzimidazol-2-yl)methyl]piperazin-1-yl]pyridin-3-ol **474417-51-1P**, 2-[[4-(3-Methylpyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-52-2P**, 2-[[4-(Pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole bis((L)tartrate)
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(dopamine agonist; prepn. of (heterocyclylalkyl)benzimidazoles from heterocycles and (haloalkyl)benzimidazoles for treatment of sexual dysfunction)

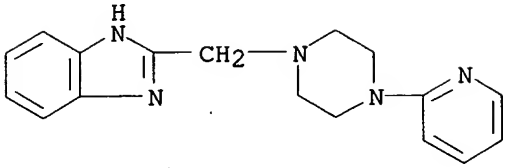
RN 70006-25-6 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-thiazolyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 474417-17-9 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

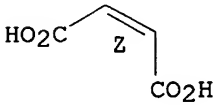
CRN 70006-24-5
CMF C17 H19 N5



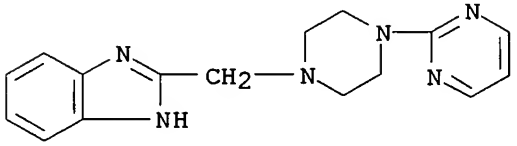
CM 2

CRN 110-16-7
CMF C4 H4 O4

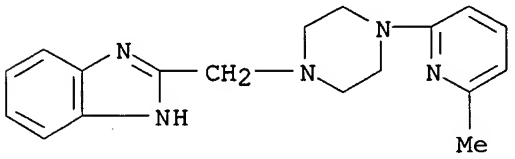
Double bond geometry as shown.



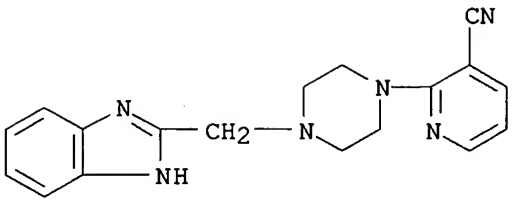
RN 474417-18-0 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyrimidinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



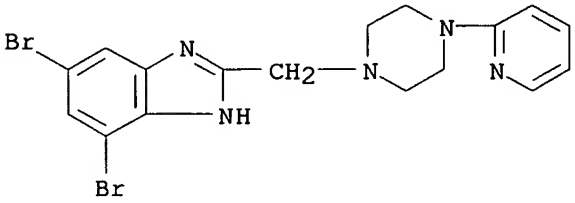
RN 474417-19-1 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(6-methyl-2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



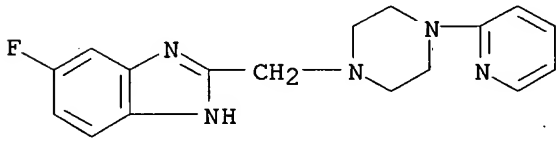
RN 474417-20-4 CAPLUS
CN 3-Pyridinecarbonitrile, 2-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)



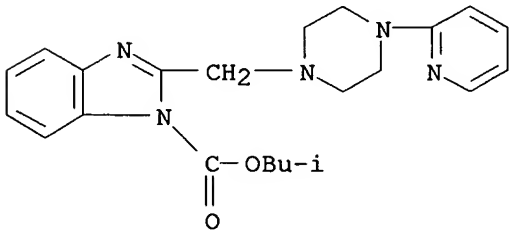
RN 474417-21-5 CAPLUS
CN 1H-Benzimidazole, 4,6-dibromo-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-
(9CI) (CA INDEX NAME)



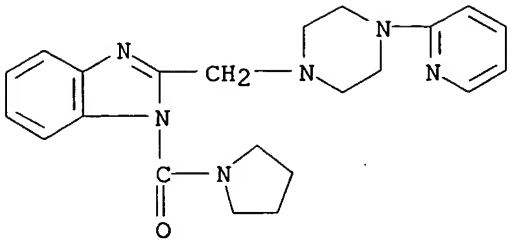
RN 474417-22-6 CAPLUS
CN 1H-Benzimidazole, 5-fluoro-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-
(9CI) (CA INDEX NAME)



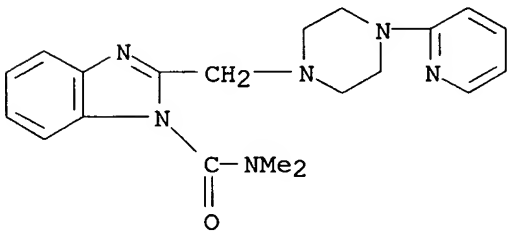
RN 474417-24-8 CAPLUS
CN 1H-Benzimidazole-1-carboxylic acid, 2-[[4-(2-pyridinyl)-1-
piperazinyl]methyl]-, 2-methylpropyl ester (9CI) (CA INDEX NAME)



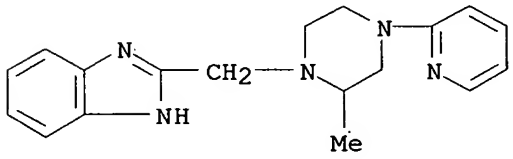
RN 474417-25-9 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1-(1-
pyrrolidinylcarbonyl)- (9CI) (CA INDEX NAME)



RN 474417-26-0 CAPLUS
CN 1H-Benzimidazole-1-carboxamide, N,N-dimethyl-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

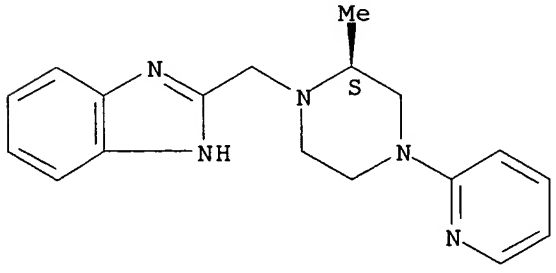


RN 474417-39-5 CAPLUS
CN 1H-Benzimidazole, 2-[[2-methyl-4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



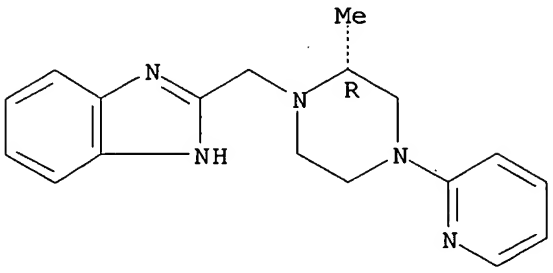
RN 474417-41-9 CAPLUS
CN 1H-Benzimidazole, 2-[[(2S)-2-methyl-4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

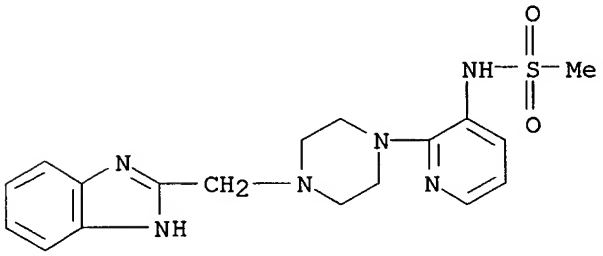


RN 474417-43-1 CAPLUS
CN 1H-Benzimidazole, 2-[[(2R)-2-methyl-4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

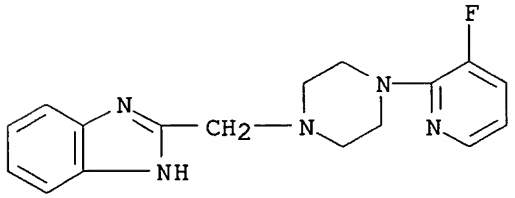
Absolute stereochemistry.



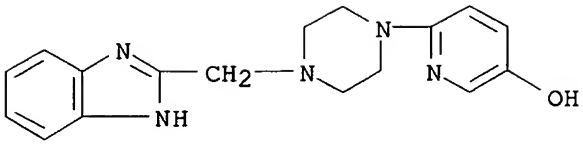
RN 474417-45-3 CAPLUS
CN Methanesulfonamide, N-[2-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]-3-pyridinyl]- (9CI) (CA INDEX NAME)



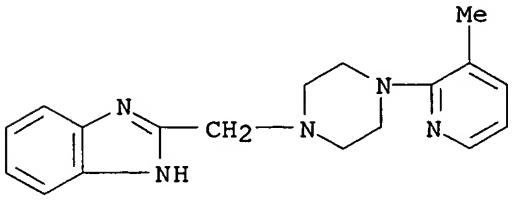
RN 474417-47-5 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(3-fluoro-2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 474417-48-6 CAPLUS
CN 3-Pyridinol, 6-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)



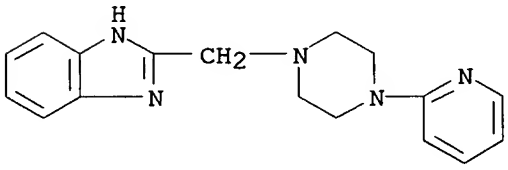
RN 474417-51-1 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(3-methyl-2-pyridinyl)-1-piperazinyl]methyl]-
(9CI) (CA INDEX NAME)



RN 474417-52-2 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-,
(2R,3R)-2,3-dihydroxybutanedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

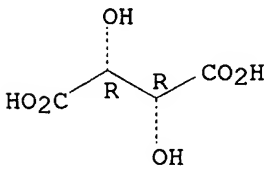
CRN 70006-24-5
CMF C17 H19 N5



CM 2

CRN 87-69-4
CMF C4 H6 O6

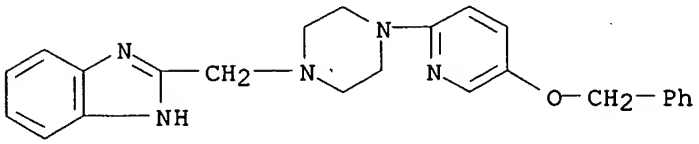
Absolute stereochemistry.



IT **474417-50-0P**, 2-[[4-[5-(Benzyloxy)pyridin-2-yl]piperazin-1-
yl]methyl]-1H-benzimidazole

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of (heterocyclylalkyl)benzimidazoles from heterocycles and (haloalkyl)benzimidazoles for treatment of sexual dysfunction)

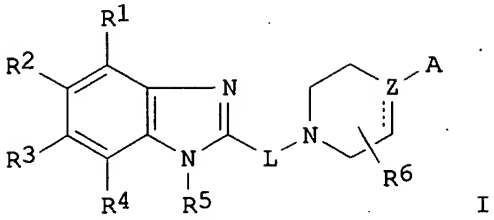
RN 474417-50-0 CAPLUS
CN 1H-Benzimidazole, 2-[[4-[5-(phenylmethoxy)-2-pyridinyl]-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:849600 CAPLUS
DN 137:353023
TI Preparation of 2-heterocycloalkyl-benzimidazole derivatives for treating sexual dysfunction
IN Cowart, Marlon D.; Bhatia, Pramila A.; Daanen, Jerome F.; Stewart, Andrew O.; Kolasa, Teodozyj; Rohde, Jeffrey J.; Patel, Meena V.; Brioni, Jorge D.
PA Abbott Laboratories, USA
SO PCT Int. Appl., 115 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002088093	A1	20021107	WO 2002-US7791	20020306
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003008878	A1	20030109	US 2001-874484	20010605
	US 2002169166	A1	20021114	US 2001-17939	20011214
	CA 2439943	AA	20021107	CA 2002-2439943	20020306
	EP 1373220	A1	20040102	EP 2002-731130	20020306
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2005507370	T2	20050317	JP 2002-585395	20020306
	BR 2002005812	A	20050503	BR 2002-5812	20020306
	NO 2003003959	A	20031110	NO 2003-3959	20030908
PRAI	US 2001-803537	A	20010309		
	US 2001-874484	A	20010605		
	US 2001-17939	A	20011214		
	WO 2002-US7791	W	20020306		

OS MARPAT 137:353023
GI



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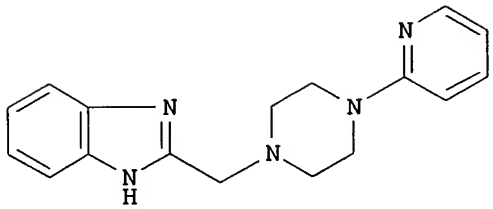


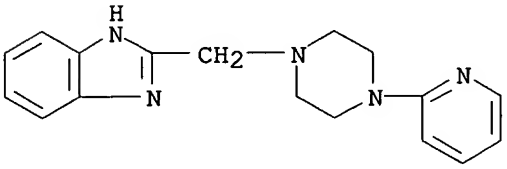
II

AB The present invention relates to the use of I [A = Ph, pyridyl, pyrimidinyl, thiophenyl, etc.; X = NH, O, S; L = (CH2)1-4; R1-4 = H, alkoxy, alkenyl, alkyl, alkylsulfinyl, etc.; R5 = H, alkoxycarbonyl, alkyl, alkylcarbonyl, arylcarbonyl, etc.; R6 = H, alkyl; Z = N, C (if dotted line is a bond), CH (if dotted line is absent)] for the treatment of sexual dysfunction. For instance, 1-(2-pyridyl)piperazine was reacted with 2-chloromethylbenzimidazole to afford II which was isolated and converted to the maleate salt. II at s.c. doses of 0.01 - 0.10 .mu.mol/kg induced statistically significant penile erections in rats compared to vehicle (L-ascorbic acid in saline).

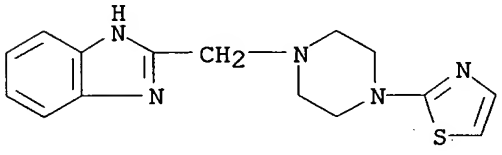
IT **70006-24-5P**, 2-[(4-(Pyridin-2-yl)piperazin-1-yl)methyl]-1H-benzimidazole **70006-25-6P**, 2-[[4-(1,3-Thiazol-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-17-9P**, 2-[(4-(Pyridin-2-yl)piperazin-1-yl)methyl]-1H-benzimidazole maleate **474417-18-0P**, 2-[(4-Pyrimidin-2-ylpiperazin-1-yl)methyl]-1H-benzimidazole **474417-19-1P**, 2-[[4-(6-Methylpyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-20-4P**, 2-[4-(1H-Benzimidazol-2-ylmethyl)piperazin-1-yl]nicotinonitrile **474417-21-5P**, 5,7-Dibromo-2-[(4-(pyridin-2-yl)piperazin-1-yl)methyl]-1H-benzimidazole **474417-22-6P**, 5-Fluoro-2-[(4-(pyridin-2-yl)piperazin-1-yl)methyl]-1H-benzimidazole **474417-24-8P**, Isobutyl 2-[(4-(pyridin-2-yl)piperazin-1-yl)methyl]-1H-benzimidazole-1-carboxylate **474417-25-9P**, 2-[(4-(Pyridin-2-yl)piperazin-1-yl)methyl]-1-(pyrrolidin-1-ylcarbonyl)-1H-benzimidazole **474417-26-0P**, N,N-Dimethyl-2-[(4-(pyridin-2-yl)piperazin-1-yl)methyl]-1H-benzimidazole-1-carboxamide **474417-39-5P**, 2-[(2-Methyl-4-(pyridin-2-yl)piperazin-1-yl)methyl]-1H-benzimidazole **474417-41-9P**, (S)-2-[[2-Methyl-4-(pyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-43-1P**, (R)-2-[(2-Methyl-4-(pyridin-2-yl)piperazin-1-yl)methyl]-1H-benzimidazole **474417-45-3P**, N-[2-[4-(1H-Benzimidazol-2-ylmethyl)piperazin-1-yl]pyridin-3-yl]methanesulfonamide **474417-47-5P**, 2-[[4-(3-Fluoropyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole

474417-48-6P, 6-[4-(1H-Benzimidazol-2-ylmethyl)piperazin-1-yl]pyridin-3-ol **474417-51-1P**, 2-[[4-(3-Methylpyridin-2-yl)piperazin-1-yl]methyl]-1H-benzimidazole **474417-52-2P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 2-piperazino/piperidino-alkyl-benzimidazole derivs. for treating sexual dysfunction)

RN 70006-24-5 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



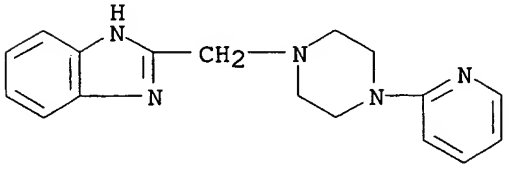
RN 70006-25-6 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-thiazolyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 474417-17-9 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

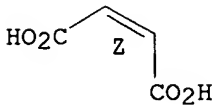
CRN 70006-24-5
CMF C17 H19 N5



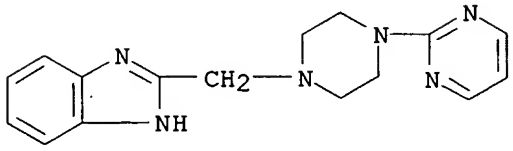
CM 2

CRN 110-16-7
CMF C4 H4 O4

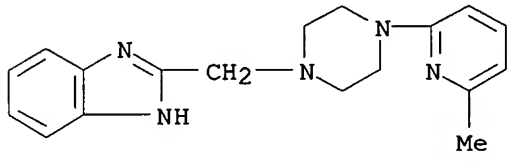
Double bond geometry as shown.



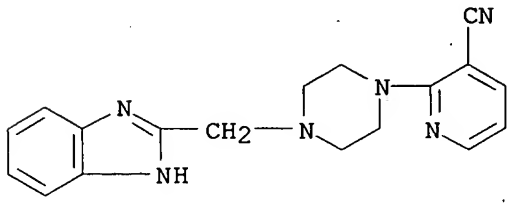
RN 474417-18-0 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyrimidinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



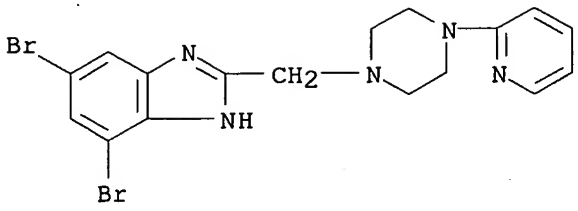
RN 474417-19-1 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(6-methyl-2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



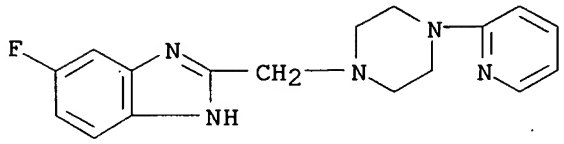
RN 474417-20-4 CAPLUS
CN 3-Pyridinecarbonitrile, 2-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)



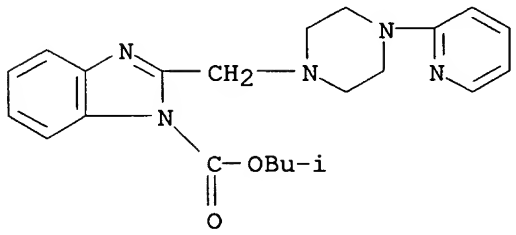
RN 474417-21-5 CAPLUS
CN 1H-Benzimidazole, 4,6-dibromo-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



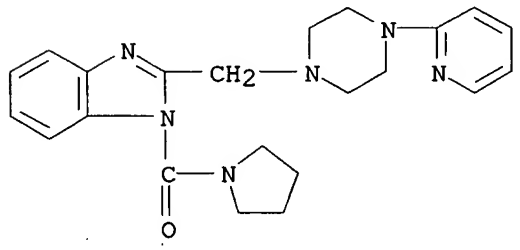
RN 474417-22-6 CAPLUS
CN 1H-Benzimidazole, 5-fluoro-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



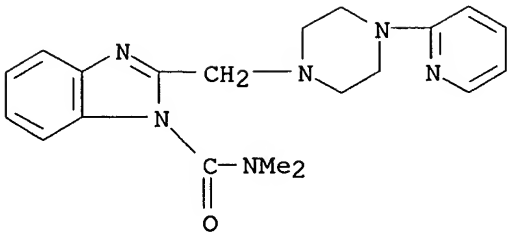
RN 474417-24-8 CAPLUS
CN 1H-Benzimidazole-1-carboxylic acid, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, 2-methylpropyl ester (9CI) (CA INDEX NAME)



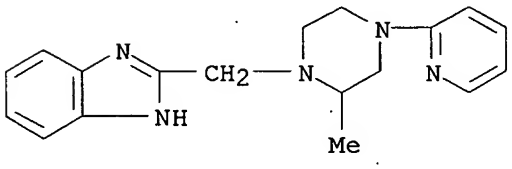
RN 474417-25-9 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-1-(1-pyrrolidinylcarbonyl)- (9CI) (CA INDEX NAME)



RN 474417-26-0 CAPLUS
CN 1H-Benzimidazole-1-carboxamide, N,N-dimethyl-2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

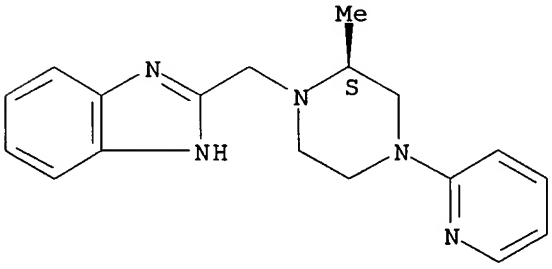


RN 474417-39-5 CAPLUS
CN 1H-Benzimidazole, 2-[[2-methyl-4-(2-pyridinyl)-1-piperazinyl]methyl]-(9CI) (CA INDEX NAME)



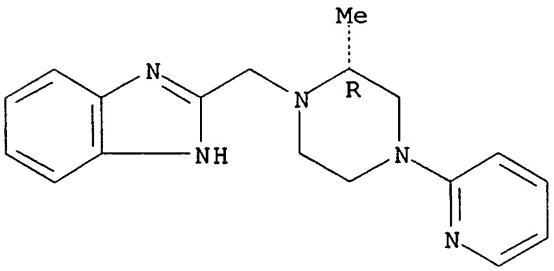
RN 474417-41-9 CAPLUS
CN 1H-Benzimidazole, 2-[[(2S)-2-methyl-4-(2-pyridinyl)-1-piperazinyl]methyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

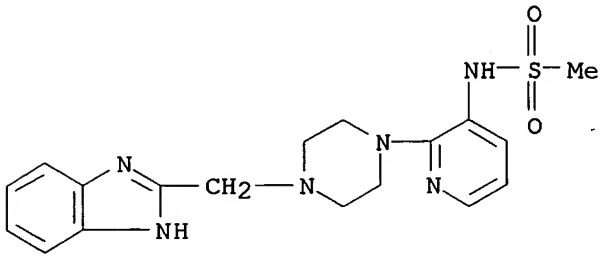


RN 474417-43-1 CAPLUS
CN 1H-Benzimidazole, 2-[[(2R)-2-methyl-4-(2-pyridinyl)-1-piperazinyl]methyl]-(9CI) (CA INDEX NAME)

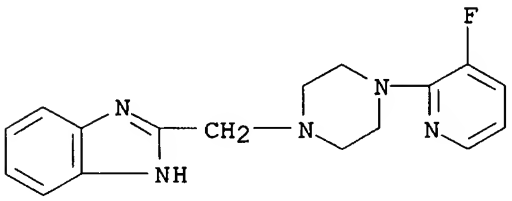
Absolute stereochemistry.



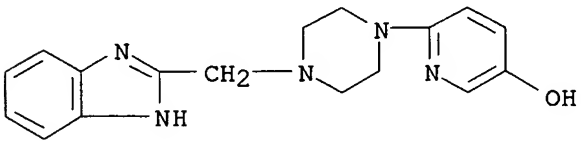
RN 474417-45-3 CAPLUS
CN Methanesulfonamide, N-[2-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]-3-pyridinyl]- (9CI) (CA INDEX NAME)



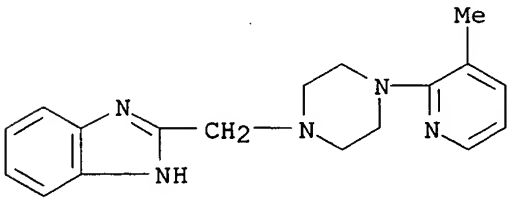
RN 474417-47-5 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(3-fluoro-2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 474417-48-6 CAPLUS
CN 3-Pyridinol, 6-[4-(1H-benzimidazol-2-ylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)



RN 474417-51-1 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(3-methyl-2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

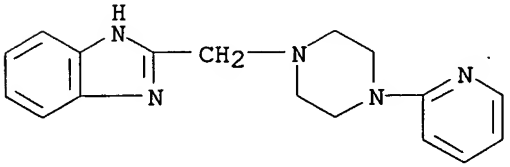


RN 474417-52-2 CAPLUS

CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-, (2R,3R)-2,3-dihydroxybutanedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

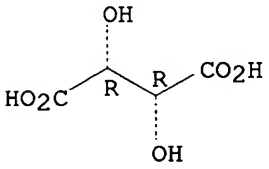
CRN 70006-24-5
CMF C17 H19 N5



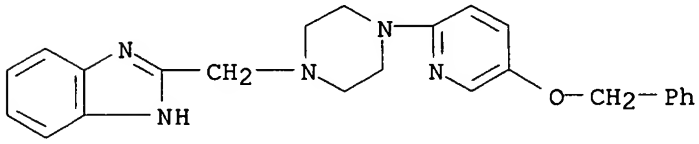
CM 2

CRN 87-69-4
CMF C4 H6 O6

Absolute stereochemistry.



IT **474417-50-0P**, 2-[[4-[5-(Benzyloxy)pyridin-2-yl]piperazin-1-yl]methyl]-1H-benzimidazole
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of 2-piperazino/piperidino-alkyl-benzimidazole derivs. for treating sexual dysfunction)
RN 474417-50-0 CAPLUS
CN 1H-Benzimidazole, 2-[[4-[5-(phenylmethoxy)-2-pyridinyl]-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:235655 CAPLUS
DN 116:235655
TI Preparation of 2-[4-(azolobutyl)piperazino(methyl)]benzimidazoles and

analogs as antihistaminics

IN Cuberes-Altisent, Maria Rosa; Frigola-Constansa, Jordi; Pares-Corominas, Juan

PA Laboratorios del Dr. Esteve S. A., Spain

SO Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW

DT Patent

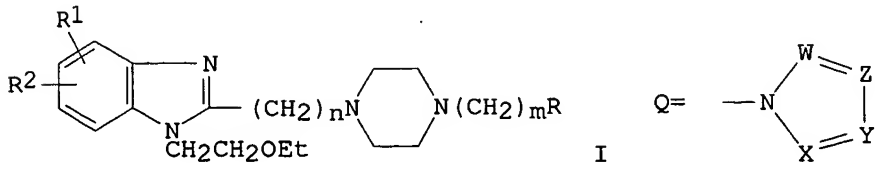
LA French

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 468884	A1	19920129	EP 1991-402055	19910724
EP 468884	B1	19951220		
R: AT, BE, CH, DE, DK, FR, GB, GR, IT, LI, LU, NL, SE				
FR 2665161	A1	19920131	FR 1990-9563	19900726
FR 2665161	B1	19921127		
NO 9102669	A	19920127	NO 1991-2669	19910708
NO 178576	B	19960115		
NO 178576	C	19960424		
RO 109736	B1	19950530	RO 1991-148010	19910715
KR 183028	B1	19990501	KR 1991-12584	19910723
AU 9181280	A1	19920130	AU 1991-81280	19910724
AU 638857	B2	19930708		
AT 131822	E	19960115	AT 1991-402055	19910724
CA 2047880	AA	19920127	CA 1991-2047880	19910725
ZA 9105839	A	19920429	ZA 1991-5839	19910725
US 5182280	A	19930126	US 1991-735653	19910725
ES 2038074	A1	19930701	ES 1991-1740	19910725
ES 2038074	B1	19940201		
RU 2024519	C1	19941215	RU 1991-5001216	19910725
PL 167222	B1	19950831	PL 1991-291247	19910725
CN 1058404	A	19920205	CN 1991-105154	19910726
CN 1030915	B	19960207		
HU 58320	A2	19920228	HU 1991-2518	19910726
HU 215109	B	20000428		
JP 04234387	A2	19920824	JP 1991-187721	19910726
JP 08032703	B4	19960329		
CZ 280185	B6	19951115	CZ 1991-2351	19910726
IN 176350	A	19960504	IN 1991-DE679	19910726
PRAI FR 1990-9563	A	19900726		

OS MARPAT 116:235655

GI



I

AB Title compds. [I; R = azolo group Q; R1, R2 = H, halo, alkyl, alkoxy, etc.; X, Y, Z, W = N, (substituted) CH; n = 0, 1; m = 2-4] were prepd. Thus, I (R1 = R2 = H, n = 1) (II; R = H, m = 0) was condensed with

N-(4-bromobutyl)phthalimide and the product hydrazinolyzed to give II (m = 4) (III; R = NH2) which was cyclocondensed with 2,5-dimethoxytetrahydrofuran to give III (R = pyrrolo). III (R = 1,2,4-triazol-1-yl) had ED50 of 0.036 mg/kg i.p. against compd. 48/80-induced mortality in rats.

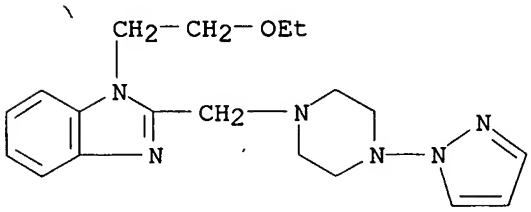
IT **140945-43-3P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as antihistaminic)

RN 140945-43-3 CAPLUS

CN 1H-Benzimidazole, 1-(2-ethoxyethyl)-2-[[4-(1H-pyrazol-1-yl)-1-piperazinyl]methyl]-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

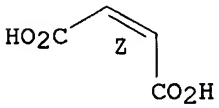
CRN 140945-42-2
CMF C19 H26 N6 O



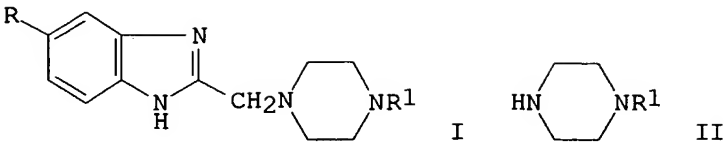
CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.



L6 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1979:204028 CAPLUS
DN 90:204028
TI Synthesis and anthelmintic activity of 2-(N4-substituted-N1-piperazinyl)methyl-5-(or 6)-substituted benzimidazoles
AU Sule, D. P.; Shah, M. H.; Ghooi, Shaila; Bhide, M. B.
CS Dep. Chemother., Haffkine Inst., Bombay, India
SO Bulletin of Haffkine Institute (1978), 6(2), 62-4
CODEN: BHFIA9; ISSN: 0304-9515
DT Journal
LA English
GI

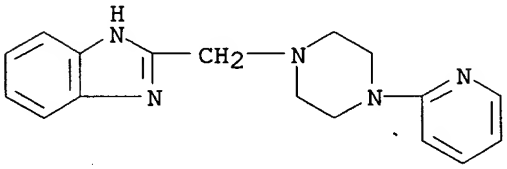


I II

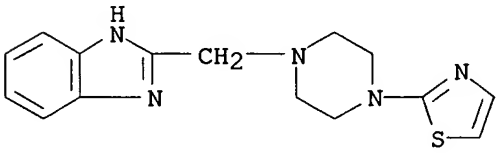
AB Sixteeen piperazinylmethylbenzimidazoles I (R = NO2, H; R1 = Me, CH2CH2OH, benzyl, Ph, p-ClC6H4, o-MeOC6H4, o-tolyl, 2-pyridyl, 2-thiazolyl) were prepd. by reaction of the piperazine II with the resp. 2-chloromethylbenzimidazoles, which were prepd. from 3,4-(H2N)2C6H3R and ClCH2CO2H. The majority of I showed anthelmintic activity >80% at 500 mg/kg as compared to Yomesan showing 100% activity at 500 mg/kg. I (R = NO2) were more active than I (R = H).

IT **70006-24-5P 70006-25-6P 70006-32-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and anthelmintic activity of)

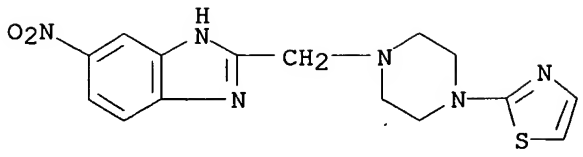
RN 70006-24-5 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-pyridinyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 70006-25-6 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(2-thiazolyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 70006-32-5 CAPLUS
CN 1H-Benzimidazole, 5-nitro-2-[[4-(2-thiazolyl)-1-piperazinyl]methyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

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